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A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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BALTIMORE, OCTOBER 27, 1899.

The South of Today.

In order to present to the world a full story of the South of today the Manufacturers' Record will shortly issue a special Supplement covering the industrial progress to date and the outlook for the future. The contributors to this issue will include many of the most noted men of the South—men who for years have led in its upbuilding, and experts who will deal broadly with the foundation of natural resources on which Southern development rests. We believe that this Supplement will be the most important publication ever issued in the interest of the South's material advancement. The aim will be to cover as briefly but as comprehensively as possible the most telling facts regarding what has been accomplished and what the prospect for the future is, in order that the busy man may grasp the whole subject without wading through an undigested mass of uninteresting articles.

This Supplement will be sent to every subscriber to the Manufacturers' Record, and in addition to this the Southern Railway Co., appreciating its importance to the South, has purchased 10,000 copies, which will be mailed to leading business men, manufacturers and capitalists in the North and West. A copy will also be sent to every bank and banker in the South, and to many in other sections.

For Readers and Advertisers.

Mr. M. L. Holcombe, Waynesville, N. C., in sending his subscription to the Manufacturers' Record, writes:

I find the paper of great value and cannot do without it.

In a letter to the Manufacturers' Record Mr. J. J. Felder of Navasota, Texas, writes:

The little notice in the Manufacturers' Record has brought me correspondence from eight States and from Bolton, Lancashire, England, showing the Manufacturers' Record to be a great paper, with a wide circulation.

The Huntsville Chamber of Commerce has decided to offer a prize of

\$25 for the best essay, not exceeding 500 words in length, on the advantages of Huntsville as a cotton-manufacturing center. The best argument on this subject which has been made was the establishment at Huntsville of the plant of the Merrimack Manufacturing Co.

Too Much Politics.

One of the best features of the recent industrial convention at Huntsville was the neglect of political discussions in its proceedings, and the impulse given by it to the healthful movement for a reduction to the minimum of the curse of politics. That such a movement is necessary is demonstrated by the fact that the Mobile Register felt obliged to base a political editorial, aimed against Governor Johnston of Alabama, upon his plea that less attention be given to politics and more to business. In the course of the editorial the Register says:

All was harmony until he spoke. All others spoke for the bettering of the condition of the people of Alabama. Then her governor puts in his say, on the wasting of time in politics by the people of his State, that is anything but pleasing reading. What has a governor's political aspirations to do with an industrial convention? Mr. Johnston's cheap talk about the people of Alabama standing on street corners talking politics instead of attending to their business is appropriate for that of a cheap politician. If Governor Johnston is so much interested in the people of Alabama attending to business instead of talking politics, why is it that he has abandoned business to talk politics? The people of Alabama are loaded with enough common sense to take care of themselves, industrially or otherwise, without experiencing the necessity of listening to the advice of a political aspirant who has abandoned his business for the sake of holding office.

A careful search in an endeavor to discover the cause of this tirade leads to the belief that the Register, which is usually very level-headed, has permitted politics to warp its judgment. Difficulty has been experienced in finding an adequate report of Governor Johnston's speech, but about the most satisfactory is the following, which appeared as a dispatch in the Nashville American:

Gov. Joseph F. Johnston, who welcomed the delegates at the morning session, spoke during the afternoon on the resources of Alabama. The Governor's remarks were brief but pointed, and he was heartily cheered. He paid tribute to neighboring States who sent so many good citizens to Alabama. He believed diversity of agriculture was the solution of all the difficulties, and said that such diversion was bound to bring manufactures. He called upon the inhabitants of Alabama to put enterprise into their work.

"It is all very well to send commercial agents up North to bring them to us," said the Governor, "but when they come down here and see so many people standing around the corners talking politics it might cause them to hesitate. The Southern cities must take the initiative in the matter. They must subscribe their own money to their enterprises and thus show confidence in their resources."

He plainly told the loungers and talkers on politics at the corner stores to get out and go to work.

It requires a very vigorous imagination, and, perhaps, one inflamed with

factional political animosity against Governor Johnston, to discover in these words any reflection upon the people of Alabama as a whole, or a weapon "for every enemy of Alabama north of the Ohio river." He was apparently urging the necessity for less attention to politics on the part of Alabama in strict accord with the sentiment of the convention, and was pointing men who waste time in politics to a better way. A magnifying glass is not needed to perceive that too much time is wasted in politics, not only in the South, but in the rest of the country. It is not necessary even to go beyond the borders of the South to find persons who realize that fact. For instance, the Nashville American, which by no means believes that everything should be subordinated to the accumulation of wealth, and which recognizes that it is absolutely necessary at times for all patriotic citizens to participate in the strife and turmoil incidental to politics, says that "the Southern people are notoriously too much given to politics," and after a review of changed conditions since the war, adds:

Millions upon millions of dollars are being turned southward for the development of our vast resources. In every direction—from the Potomac to the Rio Grande and from the Ohio to the Gulf—the prospect is alluring. We have the wealth and there is nothing to clog the wheels of progress except too much politics and too little business. Too much politics, of course, brings in its train experimental and dangerous legislation, and the South has nothing to so much fear as legislation which will handicap our own capital and, at the same time, keep out other money necessary in the development of our resources.

This vital subject cannot be dismissed by statements that the South is not the only portion of the country cursed by too much politics; that in Ohio, for instance, children are born with ballots in their hands, or that in Nebraska personal business letters are published in wild attempts at free coinage of partisan arguments. It is enough for all progressive citizens feeling that the South is hampered to do all within their power to diminish the evil. That Governor Johnston may be active in politics by no means weakens his plea. No one can appreciate the bane of politics better than an active politician. At the same time the cause of healthy politics will not be strengthened by twisting the statement of an opponent advocating industrial activity into a text for an unjustifiable political editorial assault.

Little consolation is given by the London Coal and Iron Trades Review to British ironmasters who have found comfort in recent orders reported from America for British pig. It estimates that for the last two months American furnaces have been producing pig iron at a rate close on to 14,000,000 tons a year, indicating that the present consumption of iron and steel in the United States must be unprecedented. It finds, nevertheless, that the American demand for British pig must, at the best, be uncertain, limited and preca-

rious. The Review gives no reason for this conclusion, but it is undoubtedly the correct one. When the present activity in iron began America was sending pig to Great Britain. The demand for iron at home was so unexpected that American furnaces were at first hardly equal to it, but every effort has been made to bring up the American furnace capacity to meet existing needs, care being taken to provide against any possible sudden decline. The equipment has by no means been completed, but it may be depended upon to meet exigencies of the future, while the ironmasters will probably have formulated from experiences of the past some method whereby the iron trade may be placed upon a basis more stable than before.

Railroads and Resources.

In an address before the real-estate convention of Arkansas, Mr. Alexander C. Hull, secretary of state, set forth an elaborate statement of the possibilities in the zinc region of the State. The address was practical throughout, notably in these concluding sentences:

Everyone knows that the future success of the Arkansas zinc region depends almost altogether on railroad transportation. That the railroads are going to traverse that country, and that in the very near future, everyone agrees. Then with that enterprise assured, just picture in your minds a country "flowing with milk and honey," figuratively speaking; a country composed of five counties running over with miners and investors, the entire area a veritable mining camp, thousands of men busily engaged in throwing out as many tons daily of \$45 zinc ore, to furnish tonnage for the railroads, and large profits to the mine owners and good wages to the laborers, and added to this, consider the great amount of tonnage furnished by the importation of mining machinery of every kind and nature, and supplies for the miners, and the exportation of the varied products of the country, which, in addition to the zinc output, probably consists in a greater variety than that of any other country on the continent. Again, with these conditions, consider that the large area of government lands there insures a double farming population, thousands of new homes inhabited by happy and prosperous farmers, with a corresponding increase of cereal and live-stock productions, the establishment of manufacturing plants and industries, furnishing employment for thousands of mechanics and laborers; new towns and even cities springing up as by magic; every avenue of trade and business, professional and otherwise, greatly stimulated, property values enhanced, traffic of every kind doubled, yes, quadrupled; in short, a country teeming with wealth and prosperity, the effects of which will permeate every nook and corner of our great State, and you have in a measure an idea of what the future of "Arkansas zinc" means, because it has been left to the zinc product and its present partially-developed condition to start the ball in motion that is to bring about this transition of activities by reason of the fact that until the vast riches of zinc were discovered the people had despaired of getting railroads, and it is the railroads alone that will make all these other conditions possible.

Supplemental to this speech is one of the typical editorials of the Arkansas Gazette of Little Rock urging the prompt raising of a subscription of \$100,000 to the railroad which is to connect Little Rock with the mineral resources in the northern part of the

State, in which the sequence is given as follows:

The millions of tons of fine ore in North Arkansas is waiting for the miner, the miner is waiting for the railroad, the railroad is waiting on the Eastern capitalists, the Eastern capitalists are waiting on the Board of Trade committees, the committees are waiting on the property-owners of Little Rock.

The two utterances are strong pleas for the construction of a single railroad line. Their chief significance, however, appears in their demonstration of the connection of railroad construction generally with the development of natural resources of the South, and of a feeling friendly to such undertakings. Without railroads in this day of close competition and of sharp economies in industrial operations, the railroad is an absolute essential to development of natural resources. The iron, the coal, the limestone of Alabama and Virginia, the phosphate rock of Florida, South Carolina and Tennessee, the oil of West Virginia and Texas, the marble of Georgia have been in the ground for ages. The timber has stood in Texas, Louisiana, Mississippi and the Atlantic coast States for many years, increasing annually in potential value. They all would be today as nothing comparatively were it not for the railroads. As these have advanced they have created industrial values, and as industrial values have been developed agriculture has been given the opportunities for improvement. Manufactures and agriculture have helped the railroads, but to a greater degree have the railroads helped agriculture and manufactures. And all three influences are working together for the good of the South as it prepares to find new and wider markets for its products.

Southern Flour Mills.

One of the most suggestive papers prepared for the Huntsville convention was that of Mr. W. E. Damon of Nashville, Tenn., on flour-milling in the South. He traced the decline of flour-milling in the fifteen Southern States from the time, two decades ago, when the revolution wrought by the building of roller mills began. At that time there were 5885 flour mills in the South, representing \$60,000,000 of capital. The high price of cotton and the overshadowing of burr mills by the roller system hastened the decline of the Southern milling business until, it is estimated, it is now represented by 3000 plants, notwithstanding the fact that the population of the South has, in the meantime, increased more than one-third. Of these mills, not more than 350 are to be found in the nine cotton States. Mr. Damon contends that the South, which is now short on flour and long on cotton, is able, not only to raise all the wheat necessary for its own consumption, but also for export. He says:

For the encouragement of the Southern farmer I wish to say that the average yield of wheat per acre in the cotton States named is greater than in the great wheat-growing States of Illinois and the Dakotas. With approved methods and appliances I feel safe in asserting that no section of this country could surpass the South in this respect. With the magnificent possibilities afforded by the throwing open of the ports of Cuba and Porto Rico to American flour, to say nothing of the prospective opening of the Nicaraguan canal, thereby making a route by which 400,000,000 hungry mouths can be reached in the Orient, the South should be encouraged to a revival of her flour-milling industry. The necessity of feeding her own people is urgent. The opportunity of feeding others is alluring. Nowhere in the United States are there such openings for flour mills as in the South, especially in the cotton-growing States. Already the farmers, tiring of five-cent cotton, are turning

their attention to wheat-growing. Georgia farmers are producing forty-four bushels per acre. South Carolina is holding wheat conventions and will probably quadruple her crop. There is a general awakening all along the line, and some of the Southern States are building flour mills faster than the old wheat-growing States. Not being overcrowded, the opportunities for profitable operation are good.

The facts presented in Mr. Damon's paper are strong arguments in favor of an enlargement of an industry which has for years been more profitable in the South than elsewhere. It will be enlarged as the area devoted to wheat increases in size. This area need not encroach upon that devoted to cotton, except, perhaps, in some of the older States, yet it will tend to make cotton more profitable in reducing the cost of its production, and certainly will add to the general wealth of the South. Mr. Damon, for instance, estimates that the cotton States, exclusive of Texas, raise but a trifle more than 8,000,000 bushels of wheat with which to feed a population of 12,000,000 persons, who require the flour from 48,000,000 bushels of wheat. The deficit must be supplied from other States at a cost of about \$40,000,000. If this could be saved to the South it would be sufficient return for building flour mills. But other advantages are to be considered. If small mills of from sixty to seventy-five barrels daily capacity should be built until the number in the South is in the same proportion to population as the number was in 1879, there would be nearly 5000 additional industrial establishments, employing 20,000 persons and contributing to the support of at least three times as many. The proposition has evidently been studied by a few far-sighted men, and they, as well as others who may embark in the enterprise, should be encouraged by an increasing number of wheat-growers.

The Southern Farm Magazine.

Diversification from the broadest standpoint is treated in the November issue of the Southern Farm Magazine. The special articles bearing upon this subject and demonstrating the inter-relation of agriculture and manufactures include "The Farmer's Interest in Industrial Development," by D. A. Tompkins of Charlotte, N. C.; "The Relation of Railroads to Agriculture," by Col. J. B. Killebrew of Nashville, Tenn., and the last instalment of the suggestive study of the possibilities of cottonseed, by Edwin Lehman Johnson of South Carolina, who for more than a year saw service in the Philippines as a member of a Tennessee regiment.

Prof. Andrew M. Soule of the University of Tennessee is constantly receiving questions from individual farmers about special points in farming in which, as attention is being directed to new crops, many other persons are interested. He has arranged with the Southern Farm Magazine to answer many of these questions through its columns. The first instalment includes the discussion of the uses of the disk plow; the proper treatment of land for wheat, a most important matter in view of the tendency of the South to go further than ever into the wheat culture; the cause and the cure of ropiness in milk, and the value of the hairy vetch as a soil cover and soil binder for late fall sowing.

In a general way are discussed tobacco manuring, the wheat-growing campaign, cultivation of the velvet bean, the proper treatment of dogs, cattle in the South, the curse of too much politics and the place of the wife in farm economy, while the several regular departments are full of interesting material for old and young.

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lished monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

ANOTHER FURNACE IN BLAST.

Further Iron Developments in Anniston's Vicinity.

[Special Cor. Manufacturers' Record.]
Anniston, Ala., October 23.

Ironaton furnace No. 1 of the Alabama Consolidated Coal & Iron Co. was put in blast Saturday, after a month's inactivity, during which it was thoroughly overhauled and greatly improved.

Preparations are being rushed for working the fine brown-ore property recently purchased near Priors, and the yield of these banks will be pushed to about 250 tons of ore daily in two or three weeks. The two new veins recently opened at the company's Brookwood coal mines are showing great quantities of coal of excellent quality. General Manager Fred M. Jackson spent several days in Louisville last week arranging with President Smith of the Louisville & Nashville Railroad for the construction of a spur line three and one-half miles in length out to these two new veins.

The work of doubling the buildings and capacity of the Anniston Carpet Mills has been commenced under the supervision of Mr. Wm. H. Zinn.

A deal for the purchase of the Marsh Mining Co.'s valuable brown-ore properties near Oredell to a Northern syndicate has just been perfected. The Oredell Iron Co., Limited, is the name of the purchaser, and it is represented by J. D. Lacy of Chicago. The price paid is \$60,000. The property consists of 1100 acres of fine ore beds and an excellent mining equipment. The property will be thoroughly developed at once.

The big new cottonseed-oil mill recently established at Oxford begins operations this week.

NOT SEEKING ORDERS.

Birmingham Iron Men Caring for Current Business.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., October 24.

There is absolutely no change in the iron market. So far as actual transactions go, there is nothing of interest to record. They are confined to the range of a quiet business, which is restricted to small and medium-sized orders. There were inquiries for impossible deliveries of good-size lots, but in all probability some had no other object than to test the situation as to delivery. So far it is only small business that can be accommodated with nearby deliveries. There is a belief that a good sprinkle of large buyers who have been holding out of the market are nearing the time when they will be forced to replenish their stocks. When they are, one may expect a higher market. As things are now, sellers are not disposed to crowd on more steam, but are content in upholding current values. There is, therefore, no change to note in current quotations. The various interests are trying to even up old business, at which they have made some progress, and are making no effort for new business. They are confining themselves simply to caring for business that comes to them of its own volition. Some foreign inquiries were again on the market, but the existing conditions preclude any business. Taken altogether, there is not a single feature of interest in the market.

The rumors prevalent last spring concerning the intention of John W. Harrison to build two furnaces in the district are again revived. The gentleman himself is here, and in discussing the subject has not yet advanced beyond contempla-

tion of the act. There are some others in exactly that position. There is without doubt ample room for more furnaces, and tempting inducements are not lacking. But besides the large outlay required, there is the uncertain element of time that must elapse before returns could be realized. So it is safe to say that the contemplated new furnaces depend on so many contingencies that nothing definite concerning them can be stated.

At the steel plant they are rushing things for early action, and there is every indication that by the middle of November they will be turning out product. The demand for dwellings to house the various employees and the newcomers is far beyond ability to supply; in fact, so great has been the influx that our suburbs are all filling up as well as the city itself. The law of supply and demand asserts itself in the advance in rents, and price is no bar to occupancy. The coal output of the Tennessee Company for the month of September was 30,000 tons less than for August, and this is owing solely to the shortage of cars, which compelled suspension of operations. There is no prospect as yet of any relief, and buyers of coal from this district should take warning and anticipate the evil day the coming winter, when the cry will be for coal that cannot be supplied. Even right here in the heart of the coal region there is now anything but promptitude in filling orders. J. M. K.

Southwest Virginia Plans.

[Special Cor. Manufacturers' Record.]
Roanoke, Va., October 21.

You may expect to hear soon of some large deals in Southwestern Virginia. Contract has just been closed for the sale or lease of about 8000 acres of fine ore property in Botetourt county on the line of the Norfolk & Western Railway.

Alabama iron companies have been prospecting in this part of the State, and have closed a contract for a large body of ore property.

C. R. Baird & Co.'s furnace in this city will be in blast about November 1 or very soon thereafter. There are rumors of other furnaces and of a steel plant to be built in this vicinity. The ores of this section are finely adapted to steel-making.

Fine deposits of copper have recently been discovered and preparation is now making for gold mining on a somewhat extensive scale, the ores under test giving excellent results. Options on the property have just been closed by Northern men, who will begin work as promptly as possible.

Another Furnace Blown In.

[Special Cor. Manufacturers' Record.]
Bristol, Tenn.-Va., October 24.

The "Home" furnace of the Virginia Iron, Coal & Coke Co. was blown in today. This makes eight of the twelve furnaces belonging to the Virginia Iron, Coal & Coke Co. now in blast—two at Middlesboro, one each at Embreeville and Johnson City, Tenn., and one each at Bristol, Pulaski, Roanoke and Buena Vista, Va. The other four are being repaired, and are expected to blow in early in the winter.

The Virginia & Southwestern Railway Co. has ordered six new "consolidated" locomotive engines from the Baldwin Locomotive Works. They will be from sixty to seventy tons capacity each. One 80-ton "pusher" has also been ordered from the same company for use on the heavier graded portion of the road. Thirty miles of 80-pound steel rails have been laid on this line, and rails have been bought for thirty more miles.

C. M. Dulaney will operate the iron-ore mine known as "West Bristol Mine," located one-half mile from the "Home" furnace. An ore-washer will be placed at this mine and ore delivered to the furnace

the latter part of next week. Major A. D. Reynolds is having his magnetic iron-ore fields in Mitchell county, North Carolina, developed. This is a rich vein of specular ore similar to and a continuation of the celebrated Cranberry (N. C.) ore.

The Wise Investment Co. is shipping iron ore from Rose Hill, Dryden and Olinger, in Lee county, Virginia, to the Big Stone Gap furnace. The latter is being relined with brick made by the Petersburg Fire-Brick & Tile Co. The latter firm will also furnish the brick for the construction by the Virginia Coal & Iron Co. of seventy-five additional coke ovens at Stonega, Va.

Hon. A. J. Paterson will build and operate a 75-barrel-per-day flour mill at Greeneville, Tenn. L. D.

Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., October 25.

The Pennsylvania iron trade is in a very peculiar condition. Quotations remain at about what they have been for several weeks past. Buyers are anxious to secure material for prompt delivery. It is surprising to one who keeps in touch with the market to find out how many consumers are running around from pillar to post trying to get material for delivery within thirty days. Foundrymen and consumers of bar iron, merchant steel, tubes and sheet iron are all short of material, many of them, and in fact most of them, to a small extent, but the small want of material is as serious as the great at the present time. They find it is impossible to place orders for delivery to suit their convenience. It is impossible to predict what the outcome will be.

Pig Iron.—The pig-iron market is about as it was last week, excepting there are more buyers who would like to obtain forge for winter delivery. Several mills made light purchases during the summer, and are now nearly out. They anticipated a better supply by this time from the incoming furnaces, but it turns out that the furnaces blowing in are all sold ahead. Bessemer pig, low phosphorus and basic are all sold at the very highest figures. There is urgent inquiry, and would be an urgent demand for sheets, plates and special steel bars, pipes and tubes, as well as bridge iron, if the manufacturers of those lines were in a position to accept orders for convenient delivery. The bridge builders are particularly rushed, and some operations will very likely be held back on account of lack of supplies. Large orders for steel rails are now coming in at \$33. The Pennsylvania Railroad Co. has placed orders, it is said, for 100,000 tons, and other corporations in New England and the Middle States, and as far as Chicago, have placed orders for about a quarter of a million tons. Large orders will be placed this week. Some authorities state that the rush for steel rails will continue until the orders foot up 1,000,000 tons, but this is a mere street rumor or statement. It is certain that railway builders and managers are satisfied that steel rails are bound to advance, and that \$33 is the best possible price they will have any reason to expect. Old rails are in extremely urgent demand, and the supply seems to be about exhausted, at least the holders of them are unwilling to part with them. This is said to be due to their inability to obtain early deliveries of steel rails to take their place. The demand for scrap is also very heavy, and supplies are practically exhausted.

The most interesting feature of the market at present is the rush for machinery, both for domestic and foreign use. Within a few days a great many inquiries have been received by machinery makers. Everything looks well this week excepting

that prices may be forced up, despite the conservative attitude of manufacturers.

The Iron and Metal Trades.

[Special to Manufacturers' Record.]

New York, N. Y., October 26.

In its review of the week the Iron Age says:

"There has been a very active week in some branches of the iron trade, and in the cruder products some large transactions have taken place. One interest has purchased fully 50,000 tons of basic pig in different parts of the country, and has options on some additional amounts. It is reported that, so far as the iron purchased in Western Pennsylvania is concerned, it was on the basis of \$21 at furnace.

"In Bessemer pig one large consuming interest has taken about 75,000 tons at \$23 at valley furnace for the first half of 1900, in addition to a lot of 30,000 tons referred to last week. Pittsburg reports sales of forge iron aggregating 25,000 tons.

"In charcoal iron there has been a heavy movement also. Report has it that a very large block has been taken for car-wheel purposes, and some good business has been done in iron for malleable purposes, with one inquiry for 10,000 tons in the Western market.

"A number of conferences have been held by some of the large billet producers, but so far as we can learn no definite action has been taken. Some large trades have taken place on the basis of relatively low figures, but special conditions governed these transactions, so that the prices do not reflect the market accurately. In that way a 30,000-ton lot was placed, in addition to the 50,000-ton transaction referred to last week.

"The opportunity given to the railroads to come in at \$33 before the price was raised to \$35 seems to have been very widely availed of, and in some instances the tonnage placed by individual roads was very large, while in others it was below the usual quantities. The movement, which has now culminated, began as early as August, and a good deal of tonnage was placed at figures running up from \$28 to \$29. The total now on the books for 1900 delivery is variously estimated at 1,200,000 tons to 1,500,000 tons, not including from 200,000 to 300,000 tons to be carried over from the current year. Among the recent sales are 145,000 tons for the Harriman systems, 105,000 tons for the Pennsylvania, distributed among the mills along the line of the road; 50,000 tons for the Illinois Central, 35,000 tons for the New York Central, 40,000 tons for the Baltimore & Ohio, 40,000 tons for the St. Paul, 40,000 tons for the Union Pacific, 40,000 tons for the Chicago & Northwestern and a large block for the Louisville & Nashville. The Lehigh Valley order went to Pittsburg. Practically all the coal roads and all the New England roads have placed their orders, and a large part of the business for the South and Southwest was also taken. The Great Northern, which it was expected would call for a very large quantity, has placed only 15,000 tons. The report is current that since the advance to \$35 has taken place an order for 20,000 tons has been entered for one road.

"Since the capacity of the mills is about 2,250,000 tons, the works are now engaged very considerably beyond the first half of the coming year.

"The prevailing car famine has again emphasized the necessity for more and modern rolling stock, and it looks as though very large requirements will come upon the market from that quarter. As a matter of fact, a considerable number of orders have been placed lately.

"The Lake shipyards and the yards along the Atlantic coast are crowded with

work, and have added to it lately, notably on the lakes, so that some of the plate mills are now under heavy pressure, and will remain so for many months to come.

"Reports from the wire trade refer to heavy commitments for the future, with deliveries still behind. This is at a time when in this branch the manufacturers ought to begin to accumulate a stock for the spring trade.

"The past week has been one of receding values in the metal market. Large blocks of Lake copper have been offered unsuccessfully at 17½ cents. Tin had a sharp drop in London and here, declining down to 30¼ cents, from which it reacted at the close. Spelter has weakened sharply, and lead, too, is somewhat easier."

ALABAMA COAL & IRON CO.

Fifty Thousand Tons of Iron Sold at \$350,000 Net Profit.

[Baltimore Daily News.]

A dispatch from Mr. T. G. Bush, president of the Alabama Consolidated Coal & Iron Co., to Mr. Richard H. Edmonds, says that furnace No. 1 at Ironaton, which has been out of blast for four or five weeks for repairs and relining, has been blown in and everything is working smoothly. This furnace has a capacity of 175 tons of pig iron a day, and during the next twelve months will have an output of about 50,000 tons. This iron has already been sold in advance for delivery as made at a profit of about \$7 to \$8 a ton, or a total of about \$350,000 net annual profit on this one furnace.

This company's big furnace at Gadsden, which has a daily capacity of 200 tons, is expected to go into blast between November 15 and December 1, and the smaller furnace at Ironaton will be ready about the same time. This furnace has a capacity of about 30,000 to 40,000 tons a year, making for the three furnaces an aggregate capacity of about 140,000 to 150,000 tons a year, while the Mary Pratt furnace at Birmingham, owned by the same company, will, when repaired and put in blast, have a capacity of 30,000 tons a year. The company calculates thus to have a minimum capacity of 140,000 to 150,000 tons during 1900, allowing for all contingencies. At present prices of iron this would mean a net profit of about \$1,000,000.

The coal mines of the company are now turning out about 800 tons a day, and new openings are being made so as to increase this to at least 2000 tons a day. At the coal mines over 200 coke ovens are in operation, and about 400 more will be built as rapidly as possible. The coal and coke department is making large earnings, which during 1900 will, it is estimated, largely exceed \$100,000. The company has 32,000 acres of coal land, and can extend its coal and coke operations almost indefinitely.

The Alabama Consolidated Coal & Iron Co. is controlled by Baltimore, Richmond and New York capitalists. The consolidation was arranged by the International Trust Co. of Baltimore, which also formed the syndicate to underwrite its securities. The directors of this company are Messrs. Abram S. Hewitt, John E. Searles and Gen. Samuel Thomas of New York; John Skelton Williams of Richmond, president of the Seaboard Air Line; J. W. Middendorf of Middendorf, Oliver & Co., bankers, Baltimore; Douglas H. Gordon, president International Trust Co.; Richard H. Edmonds of Baltimore, and T. G. Bush and F. M. Jackson of Birmingham.

The Potomac Steel Co. has begun to turn out steel rails at the Cumberland (Md.) Rolling Mill. The mill has been idle for nearly ten years.

Studying Municipal Problems.

Mayor W. M. Drennen of Birmingham is endeavoring to make a thorough study of municipal problems by the comparative method. With that object in view he has sent to 323 mayors of cities having populations ranging from 10,000 to 100,000, questions intended to bring out certain facts about the cities. These include population, bonded indebtedness, with the rate of interest on bonds, the city tax rate on personal property and real estate, whether the city owns water works and the approximate cost of them, and the rates charged for water per annum and similar questions relating to gas works and electric-lighting plants, the number of telephones in use and their rates, number and cost of street-railway companies, bonded indebtedness, the amount and present value of stock and the total number of policemen, detectives and firemen.

Wilmington Merchants.

The Wilmington (N. C.) Merchants' Association has elected W. A. Johnson, president; M. W. Jacobi, vice-president, and P. Heinsberger, secretary and treasurer. The directors are Wm. A. Johnson, M. W. Jacobi, George R. French, S. H. Fishplate, Wm. E. Worth, Wm. Neistlie, DeWitt C. Love, John F. Garrell, J. H. Thomas, R. W. Hicks, A. B. Skelding. This association is doing good work for the merchants, and the citizens in general appreciate the work already accomplished, and look to it for still greater results during the year to come.

The Bessemer Rolling Mill, Bessemer, Ala., is being put in thorough order as rapidly as possible, and will be started as soon as repairs are finished, thus adding another important enterprise to the long list of those which are already making Bessemer one of the leading iron centers of the South. The revival of industry and the great activity in Bessemer give promise of making that place fulfill the expectations of its founder, Henry F. DeBardeleben. Mr. Morris Adler, who has been interested in the development of so many enterprises in the Birmingham district, is at the head of the Bessemer Rolling Mill enterprise.

The outcome of the industrial convention at Dallas, Texas, was the formation of a State industrial league with O. P. Bowser of Dallas, president; W. A. Rhea, E. S. Wade, E. H. R. Green, vice-presidents; S. A. Fishburn, secretary, and Ralph Beaton, assistant secretary.

Mr. W. J. Keith, architect of Minneapolis, Minn., has issued several publications containing very attractive designs for dwellings. The range of plans covers a wide scope, from the inexpensive but attractive homes costing a few thousand dollars to others costing a good many thousands. There is such a wide variety in style and finish and interior arrangement as to meet the demands of nearly all tastes. Full information can be had by prospective home-builders from Mr. Keith.

Gen. John E. Wilson, chief of engineers of the United States Army, has recommended among his estimates for river and harbor work \$5,600,000 for improvement of the Mississippi.

The output in the Joplin (Mo.) district during the week ended October 22 was 6,584,780 pounds of lead ore and 655,720 pounds of zinc ore, valued in all at \$143,225.

The builders' trial of the first-class battleship Kentucky, almost completed by the Newport News Shipbuilding & Dry-Dock Co., will take place October 31.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

AMERICA IN AUSTRALIA.

Suggestions About Opportunities for Trade.

A correspondent of the Manufacturers' Record, writing from an English possession in Australia, says:

"Just at the present juncture it is not at all desirable to push American goods in this market, owing to the stand which has been taken by the Philadelphia Export Exhibition, which is endeavoring as far as possible to get the manufacturer to deal direct with the consumer.

"It is not necessary for me to point out that this method of doing business at such a great distance is, practically speaking, impossible. It would, in my opinion, be far better for the manufacturer to endeavor to do business with the recognized business firms in this part of the world, and support them in the distribution of their respective lines in this country, and the American manufacturer should realize the fact that he cannot sell to the consumer, and expect the capitalist who has invested his money in a large wholesale and retail way in this country to push his goods.

"You can readily understand that a wholesale and retail firm would not be inclined to push a certain line of goods, invest a certain amount of capital to carry the same in stock and then find that the manufacturer would sell to the consumer who might be able to wait the time for the goods to be delivered direct from the manufacturer at the same price as he had already disposed of the goods to the wholesale and retail merchants, yet this is practically what a large number of the American manufacturers are actually doing through the hands of a few New York brokers and shipping merchants, with the result that the merchant here finds that he has more security in pushing Continental manufacturers' lines than he has in pushing American goods, for the simple fact that he realizes that when he has created a market that the manufacturer will not sell to his clients.

"No doubt it will surprise you very much when I make the statement that it is quite a customary thing here for a commission house to take an indent order for a consumer at the same price that they have quoted the merchant for the same line, probably the merchant having already given them an order for a line of goods, assuming that he had a certain outlet for these goods, practically speaking, promptly on their arrival. Upon the arrival of the goods he would be very much surprised to find that probably half a dozen lines of the same goods were on board the same ship consigned to the persons whom he anticipated disposing of his lines to, or, summing up the whole of my experience in this part of the world, after a residence here of about seventeen years, that unless the American manufacturer is prepared to adhere strictly to the wholesale and retail merchants here, or else open a branch in this part of the world and work up his own business, he will never be able to secure a fair proportion of the trade of this country.

"I might point out that under ordinary conditions it requires about six months from the time the order leaves Australia until the goods are received. I think it would be advisable if you were to point out to your clients who advertise in your valuable paper that if they wish to secure a lasting business in this part of the world it would be advisable for them to secure that business through well-recognized established business channels."

TRADE AT SMYRNA.

Suggestions for Manufacturers in Pushing Their Goods.

In a letter to the Manufacturers' Record Jacq. J. Filippucci of Smyrna, Asia Minor, a representative of American manufacturers there, writes that there is a market at Smyrna for metals in bars or sheets, hardware, cotton yarns, cotton-woven goods, cabot and drills and salted hides, and submits the following:

"We would advise each manufacturer and trader to carefully select an agent, to whom they can confide the care, the protection and the success of their interests, reserving to him a commission on the orders and sales which he may procure. The commission at so much per cent., to be determined by the parties interested, varies generally between 2 and 5 per cent., according to the value of the commodity. The agent ought to be honest, active and intelligent, and of long-established reputation on the spot, so as to ensure his fitness for the work, no less than to secure a good introduction to the principal buyers in this or that line.

"We have observed with pleasure the visits of steamers of the Barber Line, sailing direct from New York to our port. It will be necessary, however, for this line to establish a regular service between New York and Smyrna, Constantinople and Salonica, if not every fifteen days, then at least every three weeks. Such service has been found very urgent, and would better facilitate feeding the wants of above-mentioned places, thereby increasing consumption, in not encouraging consumers to recur to their former purveyors to satisfy immediate needs, for though the departures of the Barber Line are monthly in a fashion, often irregular, making an interval of five to six weeks between them, one must add to this the duration of the entire voyage, making an interval of about three months. A regular service at fixed intervals would permit both merchant and customer to make sales and purchases with partial deliveries under mutual arrangement, and thereby the dealer would see his sales increase, and would not have his customer become indifferent to him.

"We also find it necessary that merchants fix their prices always as applicable to Smyrna; that they adopt the French monetary system, franc (check on Paris), weights in kilogrammes, measures in metres and litres, and the French gauge; this will facilitate calculations by our buyers, who are habituated to the above methods, which they consider the most practical, preferring them to pound sterling, yards, pounds and pints.

"These remarks have been made by the desire we have to see the great work prosper in our latitude—a work so brilliantly begun, and for which we share with you a most devoted interest."

SAMPLES FOR GERMANY.

They May Be Sent by United States Mail.

Robert Ganz of the European Bureau of American Manufacturers at Hamburg, in a letter to the Manufacturers' Record writes:

"It may not be generally known among American manufacturers that they can now send packages containing samples or merchandise up to five kilos (about eleven pounds American) in weight by the United States mail from New York to Hamburg for sixty cents, and it would therefore be desirable to call the attention of your subscribers to this fact, since it means a saving of a great deal of annoyance and of money to both the sender and the receiver of the package.

"Heretofore the sending of small packages from the United States to Germany, and vice versa, has not alone been very troublesome and expensive, but has given a chance to the local agents of the American express companies to add a number of charges on prepaid packages, which frequently amounted to considerably more than the expressage itself. This has caused receivers of packages to decline to accept them, and it has usually led to delay and complaints.

"It would therefore be well for manufacturers and exporters to know that hereafter the United States mail is the safest and the cheapest way to send a 10-pound package to Germany.

"Everybody knows that to introduce a new article it is important that samples should be received cheaply and promptly, and there should not be any controversies at the start, and therefore the importance of the new measure and the advantages of same cannot be overestimated."

ITS NATURAL PORT.

New Orleans' Relation to the Mississippi Valley.

In his testimony before the United States industrial commission Mr. Stuyvesant Fish, president of the Illinois Central Railway, presented a statement showing the importance of New Orleans to American commerce. He said:

"New Orleans is the natural port of the Mississippi valley. You are familiar with the struggle made by the people of the valley toward the close of the last century against the embargo laid by Spain and France on commerce through New Orleans, which led to and justified the so-called Louisiana purchase in 1803. Down to the breaking out of the civil war in 1861, the river carried the products of the valley to the Gulf, brought back imported goods. During the four years of that war and the following period of misrule at the South, the very mouth of the river was allowed to fill up until only vessels of small draft could enter it, and transportation between the valley and the sea was forced into the unnatural channels provided by steep or circuitous railroads over or around the Alleghany mountains.

"That even the most direct of them is crooked is shown by the fact that while the short-line distances by rail from Chicago to New York and to New Orleans are identical, 912 miles, the air-line distances are to New York 709, to New Orleans 826. That is to say, in running over the mountains, 203 miles, or 28.6 per cent., are added to the air-line distance, while in running down the valley only eighty-six miles, or 10.4 per cent., are added thereto. * * * The line of equal railroad distances to New York and to New Orleans, respectively, may be said to begin on Lake Superior, at the boundary between Wisconsin and the upper peninsula of Michigan, and, following the northern and eastern boundaries of Wisconsin, to pass through Chicago, Ill., run thence southeasterly through Indianapolis, Ind., and Bristol, Tenn., and to reach the Atlantic coast near Charleston, S. C. Every point to the south and west of that line is nearer by rail to New Orleans than to New York. It is in that part of the basin of the Mississippi river which lies west of that line that our exportable surplus of breadstuffs and packing-house products is made, and so long as water runs down hill and it costs more to move freight up hill the natural tendency of that exportable surplus will be to reach the sea at New Orleans and the other Gulf ports. * * * No other port in the United States is served by railroads reaching, under single managements, so far and in such varied directions into the interior of the continent. That these railroads

ought to bring to and carry from New Orleans vastly more than they do of goods for foreign commerce is shown by their gross receipts during the past year from the carriage of passengers and freight being \$130,637,703, or 30 per cent. more than the value of all the imports and exports of New Orleans, which, in turn, amounted to \$100,090,537."

Another Large Ship.

The Atlantian, which recently arrived at New Orleans to take on cargo, is the latest acquisition to the West Indian & Pacific Mail Line, running between the American port, the West Indies and Liverpool. The vessel was completed only the day on which she sailed for New Orleans, September 28, at the shipyards of Sir William Armstrong Co., Limited, at Newcastle-on-Tyne. Her plans were drawn up with the special idea in view of meeting all the requirements necessary for the New Orleans-Liverpool trade. The Atlantian is 500 feet in length over all, 57 feet beam, 43.9 feet in depth from the upper deck to the bottom of the hold, gross register 9354 tons, net register 6167 tons, displacement 17,900 tons on deep draft, capacity for dead weight 12,000 tons, capacity and space for cargo equal to 27,000 or 28,000 bales of cotton, water ballast 2650 tons, speed thirteen knots.

Galveston's Cotton Shipments.

The record of cotton shipments by the way of Galveston, Texas, for the month of September shows that 170,134 bales were exported, valued at \$5,642,000, compared with 129,572 during September, 1898. These figures show that Galveston exported nearly 66,000 bales more than any other port of the United States, and places it at the head of the cotton-shipping cities of America. In addition to this staple, 11,713,000 bushels of wheat were sent to foreign ports by the way of Galveston during the first nine months of the year. This record was exceeded only by New York city.

Jottings at the Ports.

The steamship El Rio, another of the vessels being built for the Morgan Line at Newport News, has made her trial trip, and it is reported the results were entirely successful.

Exports of grain, cotton and lumber are being made by the way of Port Arthur, Texas, in large quantities. One vessel recently cleared direct for Rotterdam with 74,000 bushels of wheat, 802 tons of flour, in addition to a deckload of lumber, constituting 150,000 feet of pine.

The steamer H. B. Plant, being constructed by the Merritt-Stevens Shipbuilding Co. of Jacksonville, Fla., has been launched. The new boat is 130 feet long, twenty-two feet deep, and has a capacity for 400 people. She will be used in the coasting service between Tampa and Manatee, Fla.

The steamer Hartford, constructed by the Columbian Iron Works of Baltimore for the New York & Hartford Transportation Co., has been placed in commission. The Hartford registers about 1500 tons, and is 253 feet long. She is the first twin-screw steamer ever built in Baltimore, and has a speed of fifteen knots an hour.

In his monthly report Superintendent E. L. Cope of the New Orleans dock board reports an increase in the import trade. Since October 4 seven foreign steamers have discharged cargoes aggregating more than 20,000 tons. One of them was the Knight Bachelor, with 7300 tons of sugar, the largest cargo of sugar ever landed at New Orleans.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

FROM EAST TO WEST.

Pennsylvania Capitalists Building Part of a Transcontinental System Through the South.

The announcement is made of the completion of the Choctaw & Memphis Railroad between Little Rock, Ark., and Howe, I. T., with the exception of seven miles, which comprise the belt line in the suburbs of Little Rock, now under way. This will be finished by December 1, and means the addition of a new railroad system of great importance not only to the South, but to the United States. The Choctaw & Memphis is a striking example of how a railroad line is forced to extend by the resources of the region tributary to it. Originally constructed as a coal road for the Choctaw Coal & Railway Co. in Indian Territory, it was completed between South McAlester and Wister, a distance of sixty-four miles. Northern capitalists investigating this portion of the Southwest realized the possibilities of extending it both west and east, and it was completed from Weatherford, Okla., to a point near the Indian Territory line. A company was next formed to secure control of the Little Rock & Memphis Railroad, extending between the cities named, and purchased an interest in it at a receiver's sale. This company, which is closely identified with the owners of the Choctaw, Oklahoma & Gulf, is composed principally of Pennsylvania investors.

The western portion of Arkansas, between Little Rock and the State line offers one of the best opportunities for railroad building in the Southern States, as the valley along the Arkansas river affords an excellent right of way, and this part of the State is almost destitute of transportation facilities. Arrangements were made to connect the Little Rock & Memphis with the Choctaw, Oklahoma & Gulf by the construction of 159 miles of railroad, including a bridge across the Arkansas river, and the belt line, already referred to. This necessitated the placing of securities to the extent of over \$2,000,000, but investors considered the venture such a profitable one that no difficulty was encountered, and it is safe to say that fully 75 per cent. of the bond issue is held in Philadelphia. The new line has been constructed within the last two years, and is considered one of the best pieces of railroad work in the United States. It completes a system from the east bank of the Mississippi river at Memphis to Weatherford, a distance of 563 miles, forming nearly an air line east and west and almost upon the thirty-fifth parallel.

But the promoters evidently do not intend to stop here, as surveys are being made further west. By building to Albuquerque, N. M., a connection can be formed with the Atchison, Topeka & Santa Fe and a new transcontinental route from the Atlantic to the Pacific formed, which, it is estimated, would be at least 100 miles shorter than any other now in existence. In fact, what is known as the "Thirty-fifth Parallel" route, owing to its advantages, is a well-known scheme in financial and railroad circles. At present the intention is to build to Amarillo, in the Panhandle portion of Texas, where another important railroad connection will be made, and thence into New Mexico, as stated.

The Choctaw & Memphis as completed, however, will secure a very large local traffic. One of its most important items

of revenue is the coal business from mines practically owned by the company, which it exclusively transports. It will be the means of the establishment of many industries, such as quarries, lumber mills and mines, along the Arkansas river valley, and will undoubtedly bring into the State many thousands of immigrants, who will take advantage of the resources of the State. Already several flourishing towns have been located along the new line. Little Rock and Memphis being their natural markets, these communities will be benefited accordingly.

At a conservative calculation the Choctaw & Memphis and the Choctaw, Oklahoma & Gulf lines, with the extensive coal-mining interests, represent an investment of fully \$10,000,000, most of which is Northern capital. The officers of the company are Francis I. Gowen, president; Henry Wood, vice-president; John W. Goodwin, secretary and treasurer, and J. F. Holden, manager, and F. A. Molitor, chief engineer. It is interesting to note that the directory includes several Pennsylvania people who have been identified with the Lehigh Valley system, one of the most extensive coal-carrying roads in the United States.

Earnings of the Baltimore & Ohio.

The earnings of the Baltimore & Ohio Railroad Co. have reached a point where a correct conclusion can be gained of the benefits of the improvements which have been in progress since the system went into the hands of the courts and was reorganized. The September earnings of \$2,804,000 are the largest on record. The net earnings amounted to \$1,030,000, about 25 per cent. more than during September, 1898, while for the three months of the present year, ending September 30, they amounted to \$3,042,000, an increase of over 50 per cent. compared with the corresponding period of 1898. These figures are only the result of legitimate business conditions, and are not due to any extraordinary source of traffic. They form a strong argument in favor of the policy which was adopted of practically rebuilding the line and supplying it with new equipment, with the view of obtaining the most economical results in transportation. If the fiscal year shows the same proportionate gain, its gross earnings would amount to above \$30,000,000 and the net to fully \$12,000,000. This would be an increase of \$6,000,000 compared with the twelve months ending June 30, 1898. Such a showing is remarkable, and indicates the wisdom of making a generous outlay for the improvement of a railroad when its physical condition has depreciated, as was the case with the Baltimore & Ohio.

Florida & West India Short Line.

The election of Mr. John Skelton Williams as president of the Florida Central & Peninsular Railroad, succeeding H. R. Duval, is accompanied by the announcement on the authority of Mr. Williams that negotiations have been concluded with the Richmond, Fredericksburg & Potomac Railroad from Richmond to Quantico, and with the Pennsylvania Railroad, extending from Quantico to New York, by which the trains of the Seaboard Air Line will enjoy the same rights and privileges between Richmond and Washington as those enjoyed by the Atlantic Coast Line, and from Washington to New York they will be upon the same footing in the use of the tracks of the Pennsylvania Railroad as any others.

The Seaboard Air Line, the Richmond, Petersburg & Carolina, now under construction, and the Florida Central & Peninsular, with their Northern connections, will form what is to be known as the

Florida & West India Short Line. A train service will be maintained directly from New York to Tampa without change of cars by the way of Washington, Richmond, Raleigh, Columbia, Savannah, Jacksonville and Tampa. It is estimated that this line will be the shortest between the terminal points mentioned by nearly 100 miles.

Under One Management.

A dispatch from Norfolk, Va., is to the effect that John Carstensen has been elected president and Alfred Skitt vice-president of the Norfolk & Southern Railroad. These officials have been connected with the Norfolk, Virginia Beach & Southern in similar capacities, and it is understood that their election by the Norfolk & Southern means that both of the lines in question will be operated under the same management. The Norfolk, Virginia Beach & Southern is what is termed a "Vanderbilt property." It extends from Norfolk to Virginia Beach, with a branch southward to a tributary of Currituck sound, where it connects with a line of steamers running to Tidewater North Carolina. Its total length is about forty miles. The Norfolk & Southern line extends from Norfolk to Belhaven, N. C., a distance of 112 miles, also penetrating what is known as the "sound country." The two lines have a monopoly of transporting truck, fish and other freight from Eastern North Carolina. The relations of the Pennsylvania system and the Norfolk & Southern have been very close in the past, and the election referred to has caused a considerable surprise in railroad circles.

Richmond to Chesapeake Bay.

Interest in the proposed railway between Richmond and some point on Chesapeake bay has greatly increased recently. It is announced that a meeting of the stockholders of the Richmond & Tidewater Railroad Co., the promoting organization, is to be held in Richmond on November 2 to complete a permanent organization, and that surveys are to be made immediately. This section of the South is an extensive producer of vegetables, fruit, shell fish and other freight. Several of the counties through which the road is intended to pass have no railroad facilities whatever. At Gloucester Point, as well as several other places on the Chesapeake bay, the depth of water is such that an ocean steamship could come to a dock without difficulty. As at present projected, the road is to run through Hanover, King William, King and Queen, New Kent, Essex, Middlesex, Gloucester and Mathews counties. Richmond people mentioned as interested in the enterprise are Miles M. Martin, Henry Lee Valentine and Fairfax Christian. The road would be about seventy-five miles in length.

Report of the Mobile & Ohio.

The annual report of the Mobile & Ohio Railroad Co., recently made public, shows that many important improvements have been carried out during the year. During the past two years nearly 15,000 tons of steel rails have been laid upon the road, and nearly seventy miles of track have been rebalasted, while twenty locomotives and eleven passenger and baggage cars have been added to the equipment. Altogether \$600,000 has been expended in rolling stock since 1895. The total revenue from all sources during the year amounted to \$4,128,000, an increase of nearly \$300,000 over the preceding year. After deducting operating expenses, taxes and insurance, a surplus is left of \$1,452,000, an increase of \$152,000 more than last year.

Improvements on the Pennsylvania.

The policy of the Pennsylvania Railroad Co. to make a large appropriation for improvements will be again carried out during the next year, as the company, it is reported, has contracted for about 150,000 tons of rails alone. This order has been divided among several steel companies to insure delivery as early as possible. The expenditure for rails alone will represent nearly \$3,500,000.

Railroad Notes.

It is reported that the Southern Car & Foundry Co. has secured an order from the Tennessee Central Railroad Co. for the construction of fifty-five freight cars to be finished as soon as possible.

The Norfolk & Western Railroad Co. is announced as having purchased the Belt Line Railroad in the suburbs of Durham, N. C. It is about three miles in length, and was owned by B. N. Duke.

The Missouri, Kansas & Texas Railroad Co. has purchased the Kansas City & Eldorado Railroad, and will operate it in future. The line extends between Walker and Eldorado Springs, Mo., and is about fifteen miles long.

Mr. Samuel Spencer, president of the Southern Railway Co., has been elected president of the Cincinnati Southern. It is stated that the Cincinnati Southern will not be a portion of the Southern system, but will be operated independently of it.

The Texas & Pacific Railway Co. has recently placed two freight engines in service on its Rio Grande division, which are among the largest ever used west of the Mississippi river. They were built by the Rogers Locomotive Works of Paterson, New Jersey.

The Southern Railway repair shops at Birmingham, Ala., have recently turned out a train consisting of mail, baggage and passenger coaches. The train is heated by steam, lighted by gas and will be utilized in the Southern Railway express-train service.

A correspondent of the Manufacturers' Record at Little Rock, Ark., writes that the sale of the Southwestern Arkansas & Indian Territory Railroad has not been approved by the court, and it is possible that an effort will be made to again place it before the highest bidder.

At the annual meeting of the Chesapeake & Ohio Railroad Co., held at Richmond, Va., the present board of directors were re-elected. They are as follows: Decatur Axtell, George T. Bliss, C. H. Coster, Chauncey M. Depew, Charles D. Dickey, Jr., Walter B. Hern, M. E. Ingalls, Samuel Spencer and Henry T. Wickham.

Constructing Terminals.

A New York dispatch is to the effect that the La Porte (Texas) Wharf & Channel Co. has nearly completed a dock 1300 feet long and 200 feet wide at San Jacinto bay, on the Texas coast. The Galveston, Houston & Northern Railroad will utilize this for its terminal on tidewater, while, according to President Wilson of the wharf company, arrangements are being made to construct an additional dock of the same size. Messrs. William G. Carroll & Co. of 40 Wall street, New York, are financial agents of the wharf company.

The statement in last week's Manufacturers' Record that the steamship Chancellor carried 47,097 round bales from Galveston, Texas, was an inadvertent mistake. It should have been 4797.

A meeting to concentrate action for the improvement of the Ouachita river will be held at Monroe, La., on November 8.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

WHERE COTTON FARMERS GAIN.

Results of a Southern Cotton Manufacturer's Thorough Test of the Round-Lap Bale.

Most remarkable testimony to the benefits to cotton-growers of the round cotton bale is given in a letter written to the editor of the News of Haynesville, Lowndes county, Alabama, by Mr. T. L. Jones, secretary and treasurer of the People's Cotton Factory of Montgomery, Ala., describing his test of the new system. In explanation of his letter Mr. Jones wrote: "This was a private enterprise. We had never seen a round-lap bale of cotton, and having read many opinions of it, pro and con, we decided to buy a few bales and test the matter personally. The bales we tried unwound perfectly down to the last fiber. When the cotton was thrown into the pickers it was taken up and worked without any trouble. Our superintendent, a New England man, said that these bales were opened and worked more easily than the ordinary compressed square bale. The test was made with five bales, and for our own information." In his letter to the News Mr. Jones writes:

"Some one has done me the courtesy to send me in the mail your issue of the 6th. You have a creditable and bright paper, and I have examined it with much interest. It was no doubt sent to me by some one who saw in the public prints that I, as manager of the People's Cotton Factory, was testing the 'round-lap' bale of cotton to see how it would unwind, work, etc.

"Now, I have no interest in the 'round-lap' bale, nor any interest in any manner in any person owing a cent in the enterprise. My test was made purely for information, without the knowledge, connivance or consent of any person connected with or interested in the matter.

"I am running a cotton mill, spinning several hundred bales of cotton every month. We Southern mills do not need the round bale of cotton. We get our cotton from the planters in good condition, and the square bale suits us better; but of one thing I am sure, and that is, that the Southern planter needs to labor and pray for some improvement on the present method of handling cotton intended for shipment. If the cotton was all spun here, present conditions of baling and marketing would suffice, but every damage, stealage, expense of compress, commission to middlemen is paid by the farmer, in that it is of necessity taken into account in making the prices paid in the South for cotton. Do you know that I could run our mill of 10,000 spindles and 320 looms a considerable part of the year on the samples sold by the brokers of this city out of the 175,000 bales of cotton handled here? This very week I bought thirty bales of these samples. Who stands this loss? Is it not the planter? He just as surely stands it as if it was taken out of his ginhouse. Who pays the seventy-five cents per bale for compressing cotton and the resultant loss arising from the mud, filth, etc., gathered by the bale in transit?

"All these things are figured as carefully, together with weight of bagging and ties, as part of cost of cotton, as is

any other part of the cost figured. Now every single item of this cost that can be gotten rid of enhances the value of cotton and is that much additional to be paid the planter.

"I am disinterested, and you must admit it when I say as a cotton manufacturer in the South my interest would be subserved by the continuance of these costs to the Eastern and foreign spinner, as I can get my cotton from country wagons without any of them, but the prosperity of our country demands that every citizen do his part, not to muddy the waters, but to clear them, so that the parties to be most benefited will be led aright.

"Is the round bale the 'panacea'? I do not know, but I am sure it is a big stride in the right direction. It is a move from barbarism toward better things. It is hardly probable that the first move covers the whole ground, but without this move you are left in the ditch; with it you are on the right road.

"The bale unwinds and works all right, my Massachusetts superintendent says, much better than the ordinary compressed bale, he having worked that all his life in the East. Now let's you and I be big enough and broad enough to look beyond our personal interests and see facts. My personal interest would say let the farmers suffer this tax. It figures down the price of cotton and my mill gets the benefit of it.

"You give both sides, and give facts only, so as to show where the breakers are.

"Of course, the compress people will suffer unless perchance they are wise, get out of the path of the storm and turn their compress power to running cotton spindles, in which case they will save themselves and help the country. The farmer is now paying the interest and profits on every compress in the United States. He is paying the cost of twenty-two pounds of bagging and freight on twenty-two pounds to Liverpool on every bale of cotton raised.

"Now does the round bale correct all this? If universally adopted it will. The farmer would get both these items, and the sampling, added to the price of cotton, as quickly as they are done away with. You remember the cotton buyer, besides the half-pound sample of cotton by which he sells the bale, gets two and one-half pounds for himself. You quote, in your article of the 6th, the views of Colonel Richardson, the leading cotton buyer and exporter of Memphis, as against parties interested as stockholders in the American Cotton Co. You and I in this article are hunting facts, so we must set Colonel Richardson down as one of the biggest compress men in Memphis, and he is like the round-bale men talking for his dollars. You probably have not seen a public statement not thus influenced. You call for the expressions of some party not interested. I have given them to you. My interests, pecuniarily, are the other way. I am trying to look beyond that. I go further and say that I do not number among my acquaintances a stockholder in the round-bale corporation, and yet I believe that you can no more stop it than you can stop death. The compress men can, in a measure, save themselves by using their power to run cotton spindles.

"The farmers are in the saddle in this thing, and when it is universal the cost of marketing cotton will be two cents per pound less."

Improvements to Cost \$150,000.

The Huntsville (Ala.) Cotton Mills Co. will expend over \$50,000 on the erection of a thread-mill addition, to be housed in a building 150 feet long, two stories high, and to employ 200 hands when completed.

The machinery for this addition has been ordered. The company will also spend more than \$100,000 for new machinery to be installed in the old cotton mill.

"The Southern Mill Trust."

[Jacksonville Times-Union.]

The South is willing to admit that her martyrdom of the past was fruitless, even if undertaken with the highest possible motives and with an overmastering desire to save the republic of our fathers. Is it her duty again to sacrifice all her industrial prosperity on the altar of her country? She set herself against the tendencies of the age and the courses of the stars in 1861; would the tenderest conscience today conceive that it was her duty to save an unwilling world again from itself?

Shall the South set herself against the capital which is regenerating and creating anew the industrial world, and thereby find herself once more outside the channel of the business, the progress and development of the day in which we live? If so, we raise one voice in protest. We ask that the South live in the present, cherish the past as a proud memory in which she played a noble part, and make ready for a future in which her place and her duty will not be the less noble because it will certainly be different from any our fathers conceived as possible.

We hold with Mr. Charles R. Flint of New York when he says:

"The wars of today are industrial wars; wealth is secured by production instead of by plunder; diplomats devote most of their time to studying trade conditions for the benefit of their home industries, and the most favored treaties are those of reciprocity and commerce. We might as well expect to win the industrial battles of today by our methods as to expect victory with old types of war vessels manned by men who, as Joe Jefferson said, 'had never had any rehearsals,' as against those modern combinations of steel, electricity, powder and dynamite, handled by men who had rehearsed."

Since our old system was destroyed we have felt our need of capital; we have cried aloud for it, and all but a few of us have welcomed it whenever we found it disposed to come among us and serve us. Shall we follow the few to fight it still and renew the old struggle we ceased when Lee surrendered? This same Mr. Flint has now secured the capital, and organized a syndicate which is powerful enough to operate our cotton mills on a basis and with means which will leave no advantage to those of New or Old England. What if this organization and consolidation lay the projectors open to the odium of having formed another trust? Shall not our factories be allowed the same advantages open to the fishermen, the farmers and the mechanics everywhere, as well as to their rivals? Shall not the Southern farmer be given the markets at his gates, the population and the home consumption which made New England great enough to destroy our industrial system while protecting her own?

Again we agree with Mr. Flint, who says:

"The time has gone by when it is necessary to argue as to the right to exist of large aggregations of capital for the purpose of industrial development. Every great movement in the world's progress has been opposed. Machinery has done more to benefit labor than all the acts of reformers and governments, yet originally the class most benefited endeavored to prevent its use.

"The introduction of fast coaches in Great Britain was opposed to such an extent that petitions were presented to the King and council, asking that no public coach be permitted to go more than thirty

miles a day. Macaulay, in commenting on this historic fact, was prophetic when he wrote: 'We smile at these things. It is not impossible that our descendants, when they read the opposition offered by cupidity and prejudice to the improvements of the nineteenth century, may smile in their turn.'"

And we hold with the Manufacturers' Record, which has so long proved itself the best friend in time of need a sorely struggling people ever had, because its voice reached the courts of power when ours had no strength to travel so far:

"Unless the South follow the world's lead in industrial combinations it will be fighting its battles with the muzzle-loader against the world's industrial army fully equipped with repeating rifles. Where we should stand in the end is only too plain. This great cotton-mill combination ought to become the South's most powerful weapon for gaining the control of the world's cotton-manufacturing interests."

\$300,000 Cotton Mill for Pickens, S. C.

The movement reported some weeks ago as inaugurated at Pickens, S. C., for the erection of a cotton factory has met with success. A commission for a charter has been granted in the name of the Pickens Mills, the incorporators being Messrs. Frank Hammond of Greenville, S. C.; W. M. Hagood of Easley, S. C.; W. J. Thackston of Greenville, S. C.; J. E. Hagood and B. A. Hagood of Charleston, S. C.; J. McD. Bruce, W. T. McFall and J. P. Cary of Pickens, S. C. The capital stock is \$300,000, of which \$75,000 will be offered for general subscription. Mr. Hammond will be president, and either he or W. J. Thackston, both of Greenville, S. C., can be addressed by those desiring further information. As soon as the \$75,000 is subscribed arrangements will be furthered for deciding upon the equipment, dimension of buildings and other details.

New Machinery to Cost \$50,000.

The Richmond Spinning Co. of Chattanooga, Tenn., will expend about \$50,000 for new machinery to increase its capacity. This company was organized early this year to establish a mill of 10,000 spindles (now in course of construction), and the demand for its product makes necessary a substantial increase of output, which is now 24,000 pounds daily. By the addition of the \$50,000 worth of machinery the output will be doubled and the mill enabled to operate day and night. Carding machinery will constitute the main part of the new machinery. The capital stock of \$150,000 will be increased to \$200,000 in order to provide the improvement fund.

Want Textile Information.

In a letter to the Manufacturers' Record Mr. A. Y. Scott of Rosedale, Miss., makes inquiries relative to the possibilities and profits of a yarn mill. He is also desirous of knowing the cost and extent of the necessary equipment and other information.

J. B. McDonald of Fort Meyer, Va., writes the Manufacturers' Record that he is erecting a 10,000-spindle yarn mill at Sylacauga, Ala., and desires information as to the expediency of installing knitting machines to utilize the product. He is also desirous of obtaining data relative to cotton manufacturing in general.

McComb City (Miss.) Cotton Mills.

The McComb City Cotton Mills of McComb, Miss., recently announced as forming, has fully organized and elected Mr. J. J. White, president. The company has had plans prepared for a building 70x280

feet, with boiler and engine-room forty feet square, office and storeroom forty feet square and an "L" 50x78 feet. Accommodation is provided in the structures for an equipment of 6000 spindles, although but 1000 will be installed at the start, the others to follow as policy dictates. The company has placed its capital stock at \$110,000.

A \$25,000 Knitting Mill.

The Elizabeth City Knitting Mills of Elizabeth City, N. C., has been organized, with capital stock of \$25,000, for the purpose of establishing a complete knitting plant. Contract for the erection of a suitable building will be awarded next week. Officers have been elected as follows: President, W. C. Glover; vice-president, W. T. Old; secretary-treasurer, A. L. Pendleton; these, with C. H. Robinson, O. McMullan, T. G. Skinner, F. M. Grice, W. J. Woodley and A. L. Pendleton, are the directors.

5000-Spindle Mill for West Point, Miss.

The industrial department of the Southern Railway arranged in August last for the establishment of a 5000-spindle cotton mill at West Point, Miss., as announced in this department at the time. During the week the company was incorporated, with capital stock of \$100,000, taking the name of the West Point Cotton Mills. The incorporators are Messrs. J. C. Williams, A. Carlisle, J. A. King, L. B. Smith, J. B. Paden, W. J. Beasley and J. T. Jones.

Cotton Movement.

In his report for October 20 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the first fifty days of this season was 2,256,956 bales, a decrease of 182,654 bales from the same period last year. The exports were 956,675 bales, an increase of 40,044; takings by Northern spinners 304,454 bales, an increase of 81,061; by Southern spinners 222,248 bales, an increase of 21,433.

A \$100,000 Hosiery Mill.

A charter has been granted to the Nashville Hosiery Mills of Nashville, Tenn., with capital stock of \$100,000 and purpose of engaging in the manufacture of hosiery, underwear and general knit goods. The incorporators are Messrs. Jesse H. Thomas, William Morrow, J. M. Anderson, J. H. Cridle and J. B. Carr.

Textile Notes.

The Abbeville (S. C.) Cotton Mills has increased capital stock from \$400,000 to \$500,000.

The Dwight Manufacturing Co. of Alabama City, Ala., is installing eighty cards and 144 deliveries of drawing in its mill.

The Blue Ridge Knitting Co. of Hagerstown, Md., has made a proposition to establish a branch mill in Williamsport, Md.

Messrs. J. F. Floyd, J. D. Proctor and Mr. Trainer will erect a cotton factory at Allenville, a small town near Prattville, Alabama.

A new machine for printing cotton warps, now on exhibition at Manchester, England, is the invention of Mr. J. W. Fries of F. & H. Fries, Salem, N. C.

Mr. S. T. Dewees of Chattanooga, Tenn., will establish an underwear knitting mill. No definite plans as yet formulated regarding number of machines or capacity.

Messrs. Davis, Crews & Co. of Kernersville, N. C., reported last week as to establish the Davis-Crews Knitting Mill, will erect a building 30x60 feet for the accommodation of their machinery.

Mr. Wm. S. Witham of Atlanta, Ga., has offered to take \$60,000 worth of stock in the proposed cotton factory at Thomas-ton, Ga., if the capital is made \$120,000 instead of \$60,000, as was at first proposed.

The Scotland Neck (N. C.) Knitting Mills has completed the installation of new machine equipment, displacing the old machines. The capacity is greatly increased, and the dyeing department is also improved.

Probably the erection of a cotton-wadding mill is contemplated by Mr. Lee M. Happ of 417 Cherry street, Macon, Ga., as he is desirous of communicating with manufacturers of machinery for the production of cotton wadding.

Mr. Arnold C. Scherr of the Keyser Woolen Mills, Keyser, W. Va., has formed a \$40,000 stock company to extend his woolen-manufacturing business. Among those interested will be Stephen B. Elkins and Nathan B. Scott.

Mr. H. L. Spears of Gaffney, S. C., representing himself and others, has purchased a water-power on Broad river near Gaffney, and a company will be organized to develop the power for the operation of a cotton factory and other industries.

The proposed Dublin (Ga.) Cotton Mills, recently reported, has formally organized, electing William Pritchett, president, and M. W. B. Thomas, manager. The capital stock is \$50,000, and decision as to equipment and product will be made shortly.

The cotton-factory company recently reported as to be organized in Athens, Ga., is being promoted by Mr. W. D. Griffiths. The capital stock will be \$200,000, and it is proposed to start with 2000 spindles and 200 looms, operating by steam-power.

The Odell Manufacturing Co. of Concord, N. C., has completed its weaving addition, known as mill No. 5, in which 500 looms are to be placed. At present 100 looms are in place, and 200 more will be installed soon. The weaverroom is 126x230 feet in size.

The Chamber of Commerce of Huntsville, Ala., has completed arrangements securing the establishment of a cotton factory. The plant is to have 30,000 spindles, and site for it has been selected. A plant of this size would cost in the neighborhood of \$450,000.

A stock company is being organized at Moorehead, Miss., for the purpose of erecting a cotton mill of 5000 spindles. At a meeting held last week to further the project Mr. Samuel Hale of Massachusetts offered to take for himself and associates \$50,000 worth of stock.

Mr. W. E. Fountain of Tarboro, N. C., and associates propose the establishment of several small industries, such as rope, twine, handkerchief and towel factories, and a silk mill. Correspondence from manufacturers of the machinery needed in such manufactures is solicited.

A company is forming for the purpose of establishing a knitting mill at Chattanooga, Tenn. The production of underwear is proposed. Plans, specifications and estimates for the plant have been prepared. Names of interested parties are not as yet available for publication.

A movement for a cotton factory at Fayetteville, Tenn., is meeting with much encouragement, and probably further particulars will be known next week. This movement is entirely separate from the project for developing water-power on Elk river and building cotton mills, as recently reported.

The Coosa Manufacturing Co. of Piedmont, Ala., will increase its production and will employ many additional operatives. Forty four-room houses will be erected to accommodate the new em-

ployes. Contracts will be awarded for the dwellings, so that they will be completed by January 1.

The stockholders of the Lippard & Shealy Manufacturing Co. of Concord, N. C., held a meeting last week. Mr. J. B. Sherrill was elected secretary-treasurer to succeed J. C. Lippard, who resigned. It was decided to change the company's title to the Lippard Yarn Mill. The plant has resumed operations, after a shut-down of several weeks.

The Union Manufacturing Co. of Union Point, Ga., has completed the installation of its new machinery, recently reported. This new machinery includes a complete plant for the production of ladies' underwear, the company having previously made only men's hosiery. The installation of a dyeing and bleaching plant is also under consideration. Mr. Samuel H. Sibley is president.

The projectors of the cotton factory at Canton, Ga., held a meeting during the week. A permanent organization of the company was effected, taking the name of Canton Cotton Mills, with capital stock placed at \$100,000, and privilege of increasing to \$500,000. Directors were elected as follows: Messrs. R. T. Jones, Samuel Tate, William Teasley, T. M. Brady, B. F. Perry, Wm. Galt, J. M. Brice, Geo. T. Searley and W. J. Webb.

The Pearl Cotton Mills of Elberton, Ga., is prepared to double its capacity, and in order to effect the increase will install considerable new spinning, together with speeders, slubbers, spoolers and cards. The company's present equipment is 4000 ring spindles. The new machinery will be bought soon, and manufacturers can address either the Pearl Cotton Mills, Beverly, Ga., or T. M. Swift, president, care of House of Representatives, Atlanta, Ga.

Cotton Mill, Commercial Features. By D. A. Tompkins of Charlotte, N. C. Price \$5. For sale by the author and by the Manufacturers' Record.

In his work as an engineer Mr. Tompkins has had many inquiries from people living in the cotton-growing area for full information about the business of cotton manufacture. Believing that there is a wide demand for such information by business men and investors, not only in the South, but elsewhere, Mr. Tompkins has published this volume, which is a companion book to a former publication of his, "Cotton-Mill Processes and Calculations." He discusses cotton as a factor in progress, values in cotton, plans of organization of a company, location and surroundings of a mill, methods of raising capital, investments, costs and profits, bookkeeping and accounting, labor, operatives' homes, the question of power, the sale of products, textile education, road building and broad tires and miscellaneous topics bearing upon the subject. The author has worked out to a logical conclusion his original and widely-quoted theory that the welfare of cotton-growing countries lies in their shipping out manufactured cotton at eighteen to fifty cents a pound, instead of raw cotton at five to seven cents a pound. He gives particular attention to mill bookkeeping, and shows how easy it is for a mill to bankrupt itself by a faulty system of bookkeeping, and how the best and most conscientious bookkeepers from commercial life may bring about trouble by not appreciating that there must be a broader scope covered in the books for a manufacturing plant. He makes the interesting assertion, based upon census figures, that in the first decade of this century the value and variety of manufactured products in the Virginias, Carolinas and Georgia exceeded those of the whole of New England. The

book is profusely illustrated with fine half-tone plates, most of which seem to have been made from wash drawings instead of mere photographs. The last chapter is devoted to statistics of cotton milling, drawing together in concise shape much information about the growth of the business. This is the only book of the kind ever attempted in the South, and in fact there is no other book published anywhere that could be used as a manual in the organization and construction and management of cotton mills. It is written specially with reference to new developments in the cotton-growing States, but will become indispensable to all who think of building new mills anywhere, as there seems to be no question relating to the industry which the book does not fully and concisely answer. Printed as an appendix is a pamphlet written fifty years ago by William Gregg, a pioneer manufacturer of South Carolina, showing the state of mind existing then in the cotton States toward manufacturing, and the difficulty with which manufacturing was kept alive.

Rev. L. M. Zimmerman, pastor of Christ English Lutheran Church of Baltimore, Md., in his ministerial capacity has had an opportunity to observe life in a great variety of forms, and has utilized his experiences by writing several books, which have been widely read. His latest is entitled "Yvonne." While a romance, it is intended to depict everyday domestic life, with its shortcomings, and to point out the way of avoiding them. Mr. Zimmerman has endeavored to emphasize the happiness of married life, and to show the reader how to avoid the pitfalls which may make the home unhappy. One point about the book is that many of the characters in the plot are taken from real life. "Yvonne" is from the press of the Williams & Wilkins Co. of Baltimore, and is a very creditable production from a typographical as well as a literary standpoint.

Mr. H. C. Christy, whose pastels in color of the "Men of the Army and Navy" have attracted so much attention during the past year, has just completed a new series of pastels in colors to be published by the Scribners in November. In this series there will be eight figures, and they will present full-length portraits of favorite characters of the romantic drama as made familiar to the public by celebrated actors and actresses. Some idea of the distinction that this series will have may be obtained from the statement that among the figures will be "Rip Van Winkle," for which Mr. Joseph Jefferson has posed; "Cyrano de Bergerac," studied from life from Mr. Mansfield; "D'Artagnan," drawn from life from Mr. Sothorn; "Babbie," drawn from Miss Maude Adams, and "Carmen," drawn from Madam Calve.

President Hadley of Yale College, one of the best authorities on the subject in the country, and a man whose opinions have the value of deliberate observation of actual conditions, has written an article on "The Formation and Control of Trusts" for the November Scribner's. Of their future he says: "The question of State ownership of industrial enterprises, instead of becoming an acute national issue, as so many now expect, will tend rather to become relatively unimportant, and may not improbably be removed altogether from the field of party politics."

Building operations representing more than half a million dollars have been started in Jacksonville, Fla., during the past eight months.

The output of coal in Missouri during the past fiscal year was 3,191,811 tons, an increase over the preceding year of 353,659 tons.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., October 25.

No specially new feature has developed during the week, excepting, probably, that the market referring to cotton oil is somewhat unsettled, due to the decline in tallow and lard. There are also freer offerings of new-crop oil forward, all of which has had a tendency to depress values. The trend of the market, as well as those competing products, would indicate that the prices now being paid by crushers for seed are too high. When it is considered that cotton oil abroad must compete with other vegetable oils which serve the same purpose in many instances equally well, it will be recognized that prices must not be disproportionate or business will suffer. January lard, Chicago, closes at 5.30 cents, and tallow, prime packers', Chicago, is unsettled at 5 cents. At this market there would appear to be a lack of confidence in the future with regard to cotton oil, inasmuch as holders evince more interest in selling than heretofore, although advices from various parts of the South reflect no such sentiment. Prices of cotton oil have not declined, although the present status of the market would look as if that event may come to pass any day. Considerable crude oil has changed hands during the past week, as well as contracts for forward delivery having been made, the chief purchasers being the packers and refiners, and at prices ranging from 21 to 23 cents. The cause of the depression in the cotton-oil market may be attributed to the slow export demand and the declining markets for hog and beef fats. This latter condition, however, cannot be looked upon otherwise than as temporary. English refined has declined to 16s. 6d., but the advice states at this latter price the market is firm. Concerning seed shortage, it is now assured that Texas is in this condition, although such is not the case in other seed-growing districts of the South, the valley and Atlantic sections particularly. But on the whole, to quote an authority, "more seed will be needed this year than last to press an equal quantity of oil. If there be any difference in a smaller weight of seed through dry weather, etc., the production of the oil is, of course, less; the belief is quite general that there will be a more limited outturn of oil from the average supplies of seed than ordinarily, i. e., that where the average production of oil is from thirty-three to thirty-seven gallons from a ton of seed, it is doubtful this year if an average of within five gallons of these figures will be exceeded, and that enough more seed will be required to have an important influence on the cost of oil." Texas mills are paying from \$12 to \$14 per ton for seed. With regard to crude oil at this market, 25 cents is bid for February and 26 to 27 cents in barrels prompt delivery. For prime yellow 30 to 31 cents, prompt delivery, is quoted. Soap stock is a scarce article, and sells readily when obtainable at full prices. The following are closing prices for the entire list: Crude, tanks, 23 cents; crude here, barrels, 25 to 26 cents; summer yellow, prime, 28 to 30 cents; summer, off grades, 27½ to 29½ cents; yellow, butter grades, 33 to 35 cents; white, 32 cents; winter yellow, 35 cents; salad oil, 35 cents, and soap stock 80 to 85 cents per 100 pounds. Cake and meal are in good demand throughout the South. In Galveston \$20 to \$20.50 is bid.

Cottonseed-Oil Notes.

The cotton-oil mill at Weatherford, Texas, received from Canyon City 1100 four-year-old steers, which will be fed for market at that place.

The Gainesville Cotton Oil Co. of Gainesville, Ga., has been pushing the work on its new plant, and the work of crushing for the season will commence this week.

The Powell Oil Mill of Bastrop, Texas, has been incorporated, with a capital stock of \$27,000. The incorporators are W. E. Goodman, W. A. McCord and Chester Erhard.

The cotton-oil mill at Calvert, Texas, received last week 158 wagonloads, besides fifteen carloads, of cottonseed, aggregating about 415 tons, for which \$15 per ton was paid.

The Florence Cotton Oil Mills at Florence, Ala., commenced the crushing season on the 16th inst. The mills are paying the top prices for seed, and propose to largely increase the output over that of last year.

Activity in cottonseed products and consequent demand for cottonseed by the oil mills at Memphis has started the price of the commodity upward, the first advance being recorded on the 17th inst. It was a dollar a ton for river seed or seed sent to market by steamers.

The Concord Cottonseed Oil Mill at Concord, N. C., will soon be ready for crushing. The capacity of the mill is forty tons per day, with a ginney composed of four 70-saw gins, which are now running. The capital stock is \$30,000. Mr. W. R. Odell is president, and Mr. M. L. Buchanan, secretary-treasurer.

The market for cottonseed at Corsicana, Texas, on the 16th inst. advanced \$1 per ton, the price paid on that date being \$12 per ton. The buyers in the market were the Corsicana Cotton Oil Mill, the Merchants and Planters' Mill at Houston and the National Oil Co., all anxious purchasers of seed. The indications are that the price will be higher still before the season is over.

Cottonseed products in Texas are now very firm, with a good demand for all the output. Prime crude oil, loose, is quoted 25 to 25½ cents per gallon; prime summer-yellow oil, 27 to 28 cents; linters, 2¾ to 3 cents, all f. o. b. mill; cake and meal delivered at Galveston, \$20 to \$20.50 per ton. Houston mills are paying \$10.50 to \$11.50 per ton for cottonseed f. o. b. interior towns.

Cottonseed products in New Orleans are only fairly active, with receipts light. The market is steady, with a moderate domestic and foreign inquiry. Shipments of cottonseed oil for the week ending October 19 amounted to 71,500 gallons. Receivers' prices for cottonseed products are quoted as follows: Cottonseed, \$11.50 per ton (2000 pounds) delivered here; cottonseed meal jobbing at depot, \$19.50 to \$20 per short ton and \$21.50 to \$22 per long ton for export f. o. b.; cottonseed oil, 21 to 22 cents per gallon for off crude loose f. o. b. in tanks here; in barrels, 24 cents; prime crude in bulk, 16 to 18 cents, and nominal for refined oil at wholesale and for shipment; refined oil, 25 to 27 cents; oilcake, \$21.50 to \$22 per ton f. o. b.; linters—A, 3¼ cents per pound; B, 2½ cents; C, 2½ cents; hulls delivered at 12 to 20 cents per 100 pounds, according to the location of the mills.

Superintendent A. W. Hunking of the Merrimac Manufacturing Co. is quoted as stating that fifty additional carpenters are needed to finish the work on the new mill and tenements of the company at Huntsville, Ala., and that ten times that number will be required when the other work is started.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., October 26.

In all lines of the phosphate industry business seems to have taken on greater activity, and the market continues very steady, in sympathy with other classes of fertilizers. In a local way there has been considerable business during the past week. Several parcels of Florida, Tennessee and South Carolina rock have been taken at quoted figures. The greatest activity prevails at points of production, and operations are being vigorously pushed in order to fill existing engagements. South Carolina rock is firm, with a good domestic inquiry and also a fair foreign trade in progress. Shipments from Charleston to domestic ports since September 1 aggregate 11,814 tons, against 6153 tons last year. In Florida miners are very busy, and many companies having large contracts on hand are working hard to ship their output. The territory now being worked is developing rock very satisfactorily, both in quantity and quality. During the past week work on a number of new deposits has been started, and the industry generally throughout the State is being kept well in hand. The Tennessee phosphate field is developing some very rich specimens of rock, and in Sumner county the indications point to a very large output. In Maury county the companies are very busy making shipments, both foreign and domestic. Prices continue steady, and quotations f. o. b. at Mt. Pleasant are unchanged.

Fertilizer Ingredients.

There is a much better tone prevalent in the market for ammoniates, and during the past week there has been a better inquiry from Southern sections. The feeling at primary points is more encouraging, and more interest is being taken in the six months' contracts, which will go upon the market on November 1. Tankage is stronger. Sulphate of ammonia is firmer. Nitrate of soda is said to have been well cleared up, while there is a good inquiry for near deliveries and values are firmer.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)....	\$2 90 @ 3 00
Nitrate of soda.....	1 70 @ 1 72½
Blood.....	1 90 @ 1 92½
Hoof meal.....	1 67½ @ 1 70
Azotine (beef).....	1 90 @ 1 95
Azotine (pork).....	1 90 @ 1 95
Tankage (concentrated).....	1 65 @ 1 67½
Tankage (9 and 20).....	1 72½ @ 1 75 & 10
Tankage (7 and 30).....	17 00 @ 17 50
Fish (dry).....	20 00 @ —
Fish (acid).....	12 00 @ —

Phosphate and Fertilizer Notes.

The steamship Gottfried Schenker arrived at New Orleans last week from Tampa en route for Venice with 2200 tons of phosphate rock. She will finish loading for Mediterranean ports.

It is stated that Mr. J. A. Hastings, representing a Pennsylvania oil company, has leased about 3000 acres of phosphate land between Triune and Smyrna, Tenn. The deposits are said to be very valuable.

The following vessels took part cargo of phosphate rock from the port of Savannah last week: Steamship Penreth for Bremen with 3100 tons, taken on at Fernandina, and steamship Swainby for Genoa with 2012 tons, loaded at Savannah.

Immense beds of phosphate rock are said to have been discovered at Rocky Fork, near Nolansville, Tenn. The rock has been analyzed and found to contain 90 per cent. of pure phosphate. A branch railroad will be built from Smyrna to this bed of rock.

The shipments of phosphate rock from Charleston, S. C., to domestic ports for

the week ending October 20 were as follows: Weymouth 1200 tons and Baltimore 1375 tons. The shipments from September 1 to October 20 amounted to 11,874 tons, against 6153 tons for the same period last year.

The phosphate industry of Maury county, Tennessee, will be represented at the Paris Exposition in 1900. A large piece of phosphate rock, weighing 1800 pounds, passed through Columbia on the 20th inst., having been shipped by the Central Phosphate Co. of Mt. Pleasant en route to Paris, where it will be placed on exhibition.

The properties of the Commercial Guano Co. at Savannah and Columbus, Ga., have been purchased recently by the Virginia-Carolina Chemical Co. of Richmond, Va. The deal has been in progress for some time past, and as the plants at Savannah and Columbus were as to value estimated at \$500,000, the price paid is stated at or about that figure.

The Cruise of the Cachalot. Around the World After Sperm Whales. By Frank T. Bullen, first mate. With illustrations. Publishers, D. Appleton & Co., New York. Price \$1.50.

More than two hundred years ago in natural process the colonists of New England turned their attention to the fisheries. In the course of time these hardy fishermen came to monopolize the catch of cachalots or sperm whales, and in the pursuit of that branch of seafaring life acquired the traits of hardihood and bravery which made the American navy such a power in the Revolutionary War. That war led the English, cut off from sperm oil and spermaceti by the stoppage of importation to the colonies, to engage in the whale fishery. At first the fishing was confined to the Atlantic ocean, but gradually, with the increase in the number of vessels engaged in it, the known grounds became exhausted, and in 1788 an English ship ventured from Cape Horn as the pioneer of greater undertakings in the South seas. In the meantime the Americans prospered in the industry until the war made it unsafe for their vessels. The American sperm whale fishery has never fully recovered from the setback it then had, and it is thought that within a few years it will be extinct. This volume of Mr. Bullen's, therefore, inasmuch as it regards his personal experiences twenty-two years ago, is of distinct value aside from its entertaining style and vivid descriptions, hair-breadth escapes and thrilling adventure. In it is traced the journey of the Cachalot from New Bedford, Mass., by way of the Azores and Cape Verde Islands around the Cape of Good Hope into the Indian ocean, through the Straits of Borneo to the Philippine Islands and the coast of Japan up to Port Lloyd, and thence home by way of the Sandwich Islands, the Fiji group, New Zealand and around Cape Horn. Two books have been published on the subject of whaling. They are fifty years old, and were written with scientific intent. This book does not attempt to touch that field, but deals with the sea, the methods employed in whale fishing and the dangers encountered in such attractive style that Rudyard Kipling wrote to the author: "I have never read anything that equals it in its deep-sea wonder and mystery, nor do I think that any book before has so completely covered the whole business of whale fishing, and at the same time given such real and entertaining sea pictures."

The North Carolina board of agriculture has appropriated \$2500 for co-operation with the federal government in representing the resources of the State at the Paris Exposition in 1900.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.**Baltimore.**

Office Manufacturers' Record,
Baltimore, Md., October 26.

A fairly active demand for lumber has been the rule in the local lumber market during the past week. The demand from out-of-town buyers, as well as from local sources, has been brisk in certain lines. Receipts of North Carolina pine have been moderate, and both rough and dressed lumber continues to show a firmer tone throughout the list. Yardmen and box factories are good buyers, and in kiln-dried lumber there has been a good local and foreign inquiry. White pine is firm for all desirable stock, while receipts continue moderate and prices firm and a shade higher. Cypress is in light demand, with values steady. The hardwood trade shows a good volume of local business, and for poplar, ash and oak there is a good demand from furniture factories, wagon shops and other woodworking concerns. Receipts of dried lumber are light, and at all milling sections stocks are well sold up. The foreign trade in hardwoods shows a fair movement for the present month; shipments, however, will be lighter than in September.

Norfolk.

[From our own Correspondent.]
Norfolk, Va., October 23.

The week under review has shown a more than average volume of business in all avenues of the lumber industry of the port. There seems to be no decrease in the demand, and buyers are anxious to get lumber and for prompt delivery do not regard prices seriously. Prices for a number of grades are above the regular price-list of the North Carolina Pine Association, and last year flooring that sold for \$9.25 is now selling for \$17, which is above the price-list. Stocks at all milling points are down very low, and the output is shipped as fast as it leaves the saw. There was a meeting of the North Carolina Pine Association held here last week, with the president, Colonel Roper, in the chair. A number of matters relating to the industry were discussed, and the situation was generally regarded as satisfactory, so that it was decided to let prices remain as they are for the present. There is a moderate demand from the foreign market, and for certain grades there is some business being done. Freights on lumber, both coastwise and foreign, are firm and higher, with a light offering of tonnage. Charters reported for the week are as follows: Schooner A. L. Lockwood, 267 tons, Norfolk to New York with lumber at \$2.75; schooner Theresa Wolf, 292 tons, same at \$2.80, and a schooner, 300 tons, Norfolk to New York at \$2.75.

Charleston.

[From our own Correspondent.]
Charleston, S. C., October 23.

The demand for all kinds of lumber continues to improve, and shipments from this and the port of Georgetown continue to show a material increase over the same period last year. The general business of the port is now of considerable volume, and last week there were nine steamships loading with cotton and other commodities. The offering of vessels to load lumber is moderate, and rates are firm. The following shipments were reported last week: Schooner Margaret B. Roper for Annapolis with 350,000 feet of lumber; schooner Woodward B. Abrahams for New York with 490,000 feet of lumber, and by steamer for the same port with 306,918 feet. The demand for all wood

products is brisk, and prices are firm, with a higher tendency for all grades. Merchantable lumber is quoted \$14 to \$16 for city-sawed, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8 to \$10.50. There is an active demand for shingles at \$4 to \$7 per thousand. At Georgetown there is considerable activity among the mills, all being well supplied with orders for yellow-pine and cypress lumber. Shipments from all nearby milling points have been larger for the present month than for some time past. Among the charters reported for the week were the following: Schooner Horace G. Morse from Charleston to Fall River with lumber at \$6.50, and a schooner, Charleston to New York, at \$6.

Savannah.

[From our own Correspondent.]
Savannah, Ga., October 23.

The activity in all lines of the lumber industry, both at this and nearby ports of Georgia, is not by any means decreasing. On the other hand, the demand seems to be as pronounced as ever, and Northern and Eastern buyers are sending their orders in very freely. Last week there were about fourteen sailing vessels in port loading lumber for Northern markets. Savannah lumbermen are now enjoying a very lucrative trade, prices are firm and the margin of profit has broadened considerably during this year. The market on Saturday closed firm at the following figures: Minimum yard sizes, \$12.50 to \$14; car sills, \$13.50 to \$15; difficult sizes, \$16.50 to \$25; ship stock, \$25 to \$30; sawn ties, \$10.50 to \$11, and hewn ties, 33 to 36 cents. Shipments for the week aggregated over 3,000,000 feet of lumber. The freight market is firm, and rates are higher, while the offering of handy-sized vessels is light. Among the charters reported for the week were the following: Schooner St. Croix, 190 tons, from Savannah to Neuvitas with lumber on private terms; schooner John G. Schmidt, 450 tons, from Savannah to Philadelphia at \$6 and free wharfage, option New York at \$6.75, and a schooner from Brunswick to New York on private terms.

Mobile.

[From our own Correspondent.]
Mobile, Ala., October 23.

A fairly active market in both lumber and timber has characterized the transactions of last week, and the indications are that a very heavy trade will be done during November and December. The situation in timber is unchanged, prices being firm at the late advance. Sawn timber is in good demand at 13½ to 14 cents per cubic foot, 40-foot basis; cypress is selling well at 8 to 12 cents per cubic foot, and there is a fair demand for round ash, oak, poplar, cottonwood and gum. The demand for pine saw logs is brisk at \$6 to \$8 per 1000 superficial feet. Receipts of hewn timber continue light, with values steady at 14 to 14½ cents per cubic foot, basis of 100 cubic feet, average B1 good. There is a fair demand for hewn poplar at 12 cents per cubic foot. In all branches of the lumber trade business continues active, with a prompt demand for the output. In all sections adjacent to this city mills are very busy, and have all the orders they can attend to. During the past week lumber shipments from this port amounted to 2,072,130 feet, principally to Central and South America and Cuba. The shipments of lumber since September 1 amount to 9,227,742 feet, against 4,706,913 feet last year. The steamer Songa cleared last week for Rotterdam with 45,453 cubic feet of sawn timber, 2400 cubic feet of hewn timber and 303,668 feet of lumber. Lumber and timber freights are firm and higher.

Among the charters reported are the following: A schooner from Pascagoula to Newport News with 500,000 feet of lumber at \$7.75, and the Norwegian bark Carl Pihl, 672 tons, from Mobile to Buenos Ayres with lumber at \$13, or Rosario at \$14.

Lumber Notes.

About 3,000,000 feet of lumber at Milton, Fla., belonging to J. A. Chaffin & Co. were burned on the 16th inst. The loss is estimated at \$35,000.

The Wright-Blodgett Company, Limited, of Saginaw, Mich., has purchased 19,283 acres of valuable pine lands in Calcasieu, Vernon and Rapides parishes, Louisiana.

Receipts of lumber at the port of New Orleans for the week ending October 20 amounted to 1,694,000 feet, and for the season 21,307,000 feet, against 18,273,500 feet last year.

Mr. S. M. McEwen of Jefferson, Ashe county, North Carolina, has purchased 11,600 acres of hardwood timber land in Swain and Graham counties, North Carolina. Saw mills will be erected at once to cut the timber for market.

The plant of the Washington Woodworking Co. at Washington, D. C., was destroyed by fire on the 19th inst. The building was valued at \$8000 and the planing mill at \$3000. Insurance on the property was about \$5000.

The Massey Lumber Co., which has erected a large saw mill at Macon, Ga., will commence operations this week. It is one of the largest mills of the kind in the South. Sash, doors, blinds and other articles will be manufactured.

Three large saw mills were destroyed by fire in Stoddard county, Missouri, last week—the Gail House Hickory Mills at Dudley, valued at \$5000; the Bradley Saw Mill near Puxico, valued at \$2000, and the Ashville Saw Mill, valued at \$2700.

The Hercules Cooperage Co. of Mobile, organized recently, is now running day and night to supply the demand for boxes and barrels. The company closed a contract last week for 20,000 barrels, and will ship the first instalment this week.

The Otter Creek Boom & Lumber Co. of Hambleton, W. Va., has leased a large tract of timber on the opposite side of the river from Hambleton, and will build a railroad through it. The company has arranged to locate a tannery just below Hambleton.

Pine lands are still in active demand in Louisiana. Mr. W. H. Howcott has just sold to Mr. W. W. Frazier of Philadelphia 12,000,000 feet of standing pine timber seven miles east of Hammond, La. A number of land buyers are looking around for pine timber.

One of the largest cargoes of lumber ever carried from the port of Scranton was being loaded last week on the British steamer Cranley for Dordrecht. Her cargo will consist of 1,700,000 feet of lumber, and she will draw when loaded nineteen and one-half feet.

It is stated that A. C. Emmons and associates of Boston have purchased a large planing-mill plant at Washington, N. C., and will put the same in operation about the 1st of November. The capacity of the mill will be increased and a department for the manufacture of boxes added.

The Brown Lumber Co. of Conway, S. C., was chartered last week, with a capital stock of \$10,000. The company purposes to do a general lumber and milling business. The incorporators of the company are Joseph A. Brown and Robert E. L. Brown of Chadbourne, N. C., and W. H. Howell of Conway, S. C.

The North Carolina Pine Association

held a meeting last week at Norfolk with the president, Mr. John L. Roper, in the chair. The lumber situation was thoroughly discussed, and as everything connected with the industry was pronounced satisfactory, the list of prices was allowed to remain unchanged.

The Ritter Lumber Co., composed of West Virginia capitalists, has established a lumber plant on Linville river, Western North Carolina, with a capacity of 50,000 feet of lumber per day. The mill is situated in the heart of a fine pine section and on the Linville River Railway, which has just been completed between Linville and Cranberry.

The Smith Lumber Co. of Thomasville, Ga., has been incorporated by Redden Smith, Redden Smith, Jr., W. B. Seymore and J. W. Hyde. The new company proposes to deal in land and lumber, to own and operate saw mills and kindred industries. Timber and turpentine lands throughout the Thomasville section are booming. Unprecedented prices are being paid for them in many cases.

The Hughes Lumber & Coal Co. of Caroline county, Maryland, has been incorporated by Henry W. Hughes and S. Frank Cole of Caroline county, and Geo. W. Eisenhauer, Daniel MacLea and Robert H. MacLea of Baltimore. The new company has purchased the plant and stock of William D. Uhler and Henry W. Hughes of Denton. The purpose of the company will be to manufacture lumber.

A number of large Virginia woodchoppers met in Richmond, Va., and formed an association for mutual protection. A committee was appointed to draft a plan by which the woodchoppers of Virginia could secure Virginia measurements for their wood, and to fix the price of first-class wood f. o. b. at not less than \$3.75 and second class at not less than \$3.25. The committee is to report at an adjourned meeting to be held November 15.

The Roland Lumber Co. of Baltimore will soon begin work on a large plant three miles below Faison, N. C., along the line of the Wilmington & Weldon Railroad. This company owns several thousand acres of timber in that section, and will run a line of railroad (standard gauge) through the main body of its timber lands. The company will build a saw mill of 75,000 feet capacity and a dry-kiln of full capacity for drying its output. The mill is expected to be in operation by January 1, 1900.

The Tioga Lumber Co., Limited, has commenced the erection of a large saw mill at Levine Station, four miles north of Alexandria, La., on the Iron Mountain road. The Tioga Lumber Co. is capitalized at \$60,000, with headquarters at Alexandria. The company's mill will have a capacity of 80,000 feet of lumber per day and will turn out all kinds of rough and dressed stock. The officers of the company are J. Munroe Nugent, president; Daniel F. Clark vice-president and general manager, and Joseph G. Guigras, secretary-treasurer.

The firm of Hoopes & Townsend of Philadelphia, Pa., manufacturers of bolts, cold-punched nuts, washers, rods and iron for bridges and buildings, iron and steel boilers, bridge, ship and tank rivets, has been succeeded by the Hoopes & Townsend Co., which is one of the leading exhibitors at the National Export Exposition.

The Young Men's Business Association of Richmond, Va., which has had an active existence for more than four years, and which has done much to advance the industrial life of the city, is moving for amalgamation with the Chamber of Commerce.

MECHANICAL.

Electricity for Printing.

A good example of the application of electric machinery to a job printing office is seen in a plant at Niagara Falls. Electric current is obtained from the Niagara Falls Power Co. A Westinghouse direct-current motor, 500 volts, with 1500 revolutions per minute, is mounted upon a projecting bracket attached to the wall about seven feet above the floor, and thus occupies no valuable space. The motor is belted to a jack shaft suspended from the ceiling, running the length of the room. Belts from the shaft drive the printing presses, the speed being regulated by cone pulleys. Two large printing presses and two smaller presses

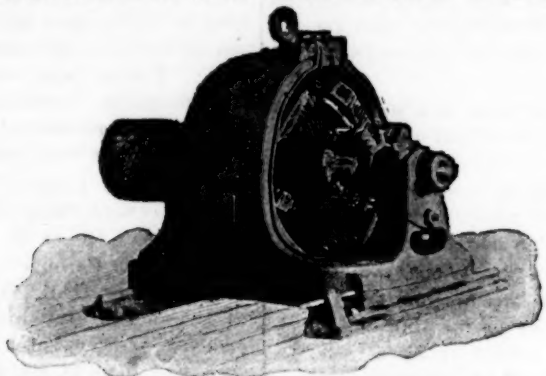


FIG. 1.—WESTINGHOUSE DIRECT-CURRENT MOTOR.

are operated electrically, as well as the binding machines. The shop is well supplied with incandescent lamps. Electric power is specially adapted for printing operations, for a motor requires no expert attendance and runs almost automatically, and is very economical.

The proprietor of this plant says: "I belt to the main shaft about twelve feet away, and from that to countershafts running each machine, using three-step cone pulleys, steel, and two-inch belting. I am operating three jobbing presses, one half-medium universal, one cylinder and one stitching machine. All can be run at the same time, and at varying speeds. The use of electrical power commends itself for its cleanliness, efficiency and economy, the power being constantly ready for use, requiring but to throw a switch, there

laminated steel. The frames are divided in a horizontal plane, the bearing-stands being integral with the lower casting. This method of construction presents numerous advantages for inspecting the machines and for the removal of the armatures. Improved self-oiling, self-aligning ball-and-socket bearings are used with all Westinghouse machines. Machine-wound coils are used, as practical experience has demonstrated they are capable of much better mechanical construction, and may be maintained at a much higher state of permanent insulation than is possible with other methods of hand winding.

The armature cores are constructed of punched discs of special sheet steel carefully annealed before assembling, a view of one of these partially wound being shown in Fig. 2. Longitudinal openings

permit free passage of air through the core, and ventilation is further augmented by ducts perpendicular to the axis of the core. Every coil is continuous throughout its length, with no joints except where it is connected with the commutator. The method of winding employed is such that free circulation of air is permitted to cross the ends of the core through the coils. The best obtainable grades of copper and insulating material is used for Westinghouse armatures and commutators.

The special features of Westinghouse direct-current multipolar motors are compact mechanical design, giving great strength and rigidity; laminated steel pole pieces with fixed commutation point and low iron loss, slotted armature and ventilated windings which protect the

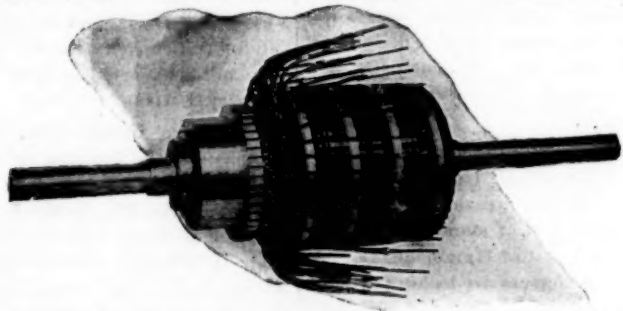


FIG. 2.—ARMATURE PARTIALLY WOUND FOR WESTINGHOUSE DIRECT-CURRENT MOTOR.

being no loss of time or attention necessary. Those who have not used electric power cannot realize its value and numerous benefits; its simplicity of application and its freedom from care are most gratifying."

The Westinghouse multipolar motors of the direct-current type are largely used for shop and machine work. This is due to the knowledge, gained by experience, that they are simply constructed, and can be installed with perfect confidence as to their efficient working. The prices of these motors is claimed to be lower than those of steam plants and other classes of machinery when the proportion of economies effected is taken into consideration.

The design of the Westinghouse direct-current multipolar motor is seen to be characterized by a circular yoke, into which are solidly cast the pole pieces of

coils and give a low temperature, self-oiling, self-aligning bearings, with a minimum expense for maintenance.

Ice-Making and Refrigerating Machinery.

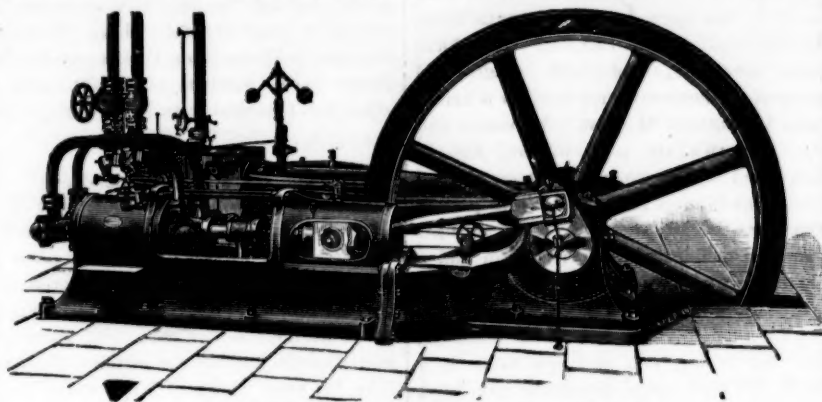
The Vilter Manufacturing Co. of 832 Clinton street, Milwaukee, Wis., has gained an enviable reputation for its ice-making and refrigerating machinery, Corliss engines and outfits for brewers and bottlers, its machinery being in operation in this country, Canada, Mexico, Jamaica, Europe and other countries. The refrigerating and ice-making machines rank with the best in the market. The ammonia compressor of the small-pattern machine is single-acting, while that of the large machine is double-acting. Refrigerating machines of either kind are furnished for direct expansion or brine circulation sys-

tems, and either machine will answer for refrigerating or ice-making purposes. Both have been adopted by brewers, packers, cold-storage houses, hotels, restaurants, passenger steamers, beer depots, bottling works, markets, butcher shops, creameries and confectioneries, as well as ice plants. The small machine is designed especially for small requirements, where floor space is limited, and the large-pattern machine is used where large capacity of refrigeration or ice-making is required. The small machines are built from two-ton refrigerating or one-ton ice-

for stiff-tempered brick machines, manufactured by the Chambers Brothers Co. of Philadelphia, Pa.

Several months ago the first machine of this type was offered on trial and found a customer near New Orleans; shortly after a second was sent to Louisiana, then one to Alabama, Mississippi, Tennessee. So they are working towards Philadelphia.

This improved cutter (of which we give an illustration) is for side-cut brick only, and is described as simple in construction, reliable and entirely automatic in its operation.

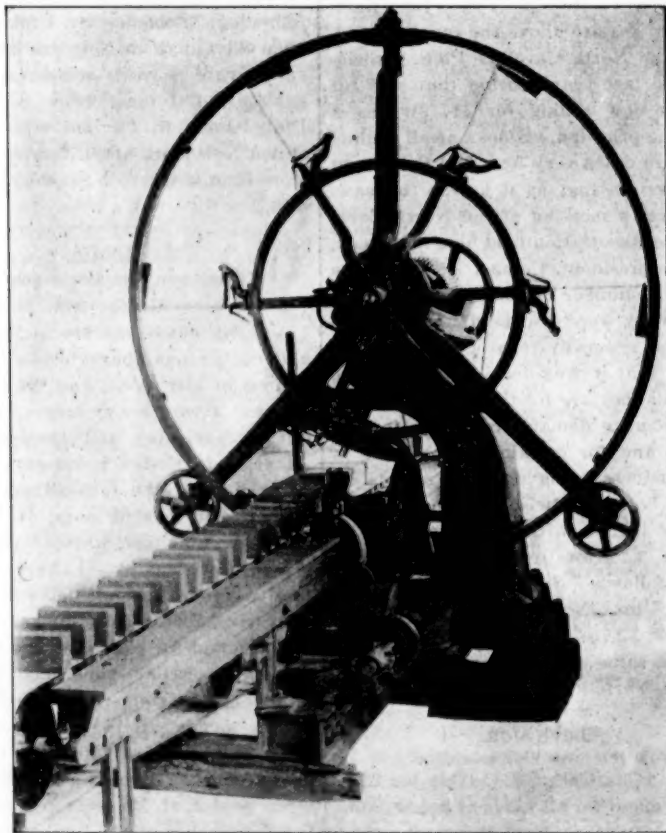


DOUBLE-ACTING AMMONIA COMPRESSOR.

making capacity upward, and the large sizes are built from five-ton refrigeration and three-ton ice-making capacity upward. The capacity is reckoned by the day of twenty-four hours. The machines are of the compression type, pure liquid anhydrous ammonia being used as the cooling agent. Either of these styles of machines can be arranged to be operated from a lineshaft or by gas or gasoline engine, electric motor, water-power, etc. Regularly the small-pattern machine has its own slide-valve engine built with the ammonia compressor on the same bed-

plate, extremely sensitive to regulation, and cuts square brick of uniform thickness and smooth angles. The wires always moving with a downward and forward motion, at an angle with the top surface and outer edge of the bar, pushes all obstructions from the surface into the body of the bar, thus avoiding ruffled edges. The presence of stones or hard substances in the bar of clay—although affecting the quality of the brick—does not damage the cutter.

Broken wires are easily and quickly replaced.



IMPROVED AUTOMATIC SIDE CUTTER.

frame, while the large-style machine, herewith illustrated, is regularly driven by a "Vilter" improved Corliss engine, which are built from thirty horsepower up.

Something New in Brick Machinery.

It is sometimes interesting to trace the introduction of new improvements in machinery. A rather singular instance of a machine first finding favor far from home has recently come to our notice. This instance is that of the automatic side cutter

An automatic wire cleaner (not shown in illustration) cleans the wires of fiber, roots, etc.

There being no reciprocating motions, this cutter can practically run at any desired speed. The slow motion of seventeen turns per minute of the cutting reel cuts over 100 bricks per minute, and it has a perfectly safe capacity of 200 bricks per minute.

The machinery is above the dirt, and all gearing is encased.

Sold subject to trial and approval.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Alabama City—Cotton Mill.—The Dwight Manufacturing Co. is installing eighty cards and 144 deliveries; present equipment 30,000 spindles and 1000 looms.

Anniston—Electric-light Plant.—The Anniston Electric Co. has been granted franchise for the erection of an electric-light and power plant, as recently reported, and an incandescent plant will at once be installed in the station of the Anniston Gas & Light Co., with which a consolidation has been effected; Howard W. Sexton, receiver, 929 Noble street.

Anniston—Carpet Mill.—The Anniston Carpet Co., Wm. H. Zinn, manager, lately reported to enlarge its mill and install new machinery, will erect a new brick building and sink a well and install a complete system of water works.

Bessemer—Rolling Mill.—The Bessemer Rolling Mill Co., previously reported in these columns as to be reorganized and to resume operations, has been incorporated, with Morris Adler of Birmingham, president; Edgar Adler, vice-president; Maxwell Coffin, general manager, secretary and treasurer. The company is authorized to purchase and build rolling mills, blast furnaces and coke ovens, manufacture coke, iron and steel, and mine coal, ore, stone, etc.

Bessemer—Iron Furnace.—John W. Harrison of St. Louis, formerly president of the Howard-Harrison Iron Co., will, it is reported, erect a large iron furnace near Bessemer, and has in view the purchase of 2000 acres of coal lands near Bessemer.

Birmingham—Blast Furnace.—A dispatch states that Fred Hoffman and W. H. Weller, formerly of the Hoffman, Billings & Weller Manufacturing Co., are forming a company and will purchase the furnace at Jenifer, Ala., with ore, coal and limestone lands to supply the furnace with raw material, the property to be put in full blast at once.

Birmingham—Chartered: The Erswell Company, with a capital stock of \$10,000, to conduct a general undertaking business, by H. J. Erswell and others.

Birmingham—Chartered: The Dixie Steam Bottling Works, to manufacture soda water, etc., with a capital stock of \$5000, by W. O'Byrne, H. B. Gray and others.

Blount Springs—Improvement Company.—

The Blount Springs Improvement Co. has been organized, with a capital stock of \$50,000, and has purchased the hotel and other property at Blount Springs, and will develop it; incorporators, A. W. Smith, Dr. E. P. Riggs, Daniel Smith and others.

Huntsville—Cotton Mill.—It is reported that site has been selected and that a new cotton mill of about 30,000 spindles will be erected. Address for particulars secretary Chamber of Commerce.

Ironaton—Iron Furnace.—Ironaton furnace No. 1 of the Alabama Consolidated Coal & Iron Co., T. G. Bush, president, Anniston, which has been out of blast for relining, has blown in.

Leeds—Ore Mining.—J. B. Elliott has acquired the brown-ore mines on Oak and Pine Ridges, near Leeds, and will develop on an extensive scale.

Phoenix—Water Works.—The construction of a system of water works is contemplated. Address W. E. Morehead, clerk.

Piedmont—Cotton Mill.—The Coosa Manufacturing Co. will increase its production, employing many more operatives.

Yellow Pine—Timber Lands.—Messrs. Reed, Humphreys, Harman and Whipple of Chicago, Ill., have purchased 21,000 acres of timber lands near Yellow Pine. W. P. Miller, land agent of the Mobile & Ohio Railroad, Chicago, Ill., can possibly give particulars.

ARKANSAS.

Little Rock—Woodworking Factory.—Chartered: The Wagonwood Stock Co., by B. H. Cunningham, president; C. L. Wayman, vice-president; Arthur Wayman, secretary-treasurer; capital stock \$20,000.

Maryhattiana—Lead and Zinc Mines.—The Maryhattiana Mining Co., reported several months ago (under St. Louis, Mo.) as incorporated, has completed its organization and begun the development of 225 acres of lead and zinc lands on Rush creek, near Maryhattiana. Address A. A. Webber, vice-president.

Perryville—Townsite Company.—The North Perryville Townsite Co. has been incorporated, with M. H. Johnson, president; R. M. Conway, vice-president; O. B. Anderson, secretary, and M. H. Johnson, treasurer, all of Little Rock, for the purpose of building a town at North Perryville; capital stock \$10,000.

Pine Bluff—Electric-light Plant.—Efforts are being made by the city for the establishment of an electric-light plant. Address "The Mayor."

Rector—Milling Company.—W. H. Jones, J. A. McNeill, Eli Meiser, C. M. Brake and others have incorporated the Rector Milling Co., with a capital stock of \$12,000.

Rison—Planing Mills.—The J. L. Porter Lumber Co. has purchased 2160 acres of agricultural and timber lands near Rison and will establish large milling and planing plant.

Yellville—Land Company.—Chartered: The Yellville Land Co., with a capital stock of \$5000, by John C. Floyd, president; William R. Jones, vice-president; T. H. Camp, secretary.

FLORIDA.

Florida—Timber Lands.—A. P. Brewer & Sons and others, represented by J. H. Drummond, Blountstown, Fla., have purchased 69,000 acres of timber lands in Jackson, Calhoun and Washington counties in Western Florida, but will not erect mills for development, as recently reported.

Florida—Turpentine Lands.—Hall Bros. have purchased 13,848 acres of turpentine lands in vicinity of Tampa and will develop. Address care of Hendry & Knight.

Juliette—Phosphate Plant.—The Juliette Phosphate Mining Co. states that the report that it was building a new plant is incorrect, and that it is only building an extension to its stockhouse.

Palmetto—Fuller's-earth Plant.—A large drying plant will be erected near Palmetto to handle fuller's-earth deposits. Possibly Belmont Tiffany, New York, N. Y., can give information.

Tallahassee—Electric-light Plant.—It has been decided by popular vote to issue the \$16,000 of bonds for erection of the electric-light plant recently reported. Address O. C. Van Brunt, city clerk.

Titusville—Fruit-protection Company.—W. H. McFarland, George M. Robbins, Robert McNamee and others have incorporated the McFarland Fruit Protection Co., with a cap-

ital stock of \$50,000, for the protection of fruit trees from cold, including the manufacture of devices for affording such protection.

GEORGIA.

Athens—Cotton Mill.—Report was recently made that a \$200,000 stock company was to be formed to start a mill of 2000 spindles and 200 looms. It is now known that W. D. Griffiths is promoting this factory, and that steam-power will be used.

Bainbridge—Water Works.—The city has completed arrangements for asking bids on its proposed water-works system; equipment to include standpipe, four miles of piping, air compressors, etc. Plans and specifications by Moore & McCrary of 407 English-American Building, Atlanta, where they can be seen, or at clerk's office in Bainbridge.*

Cartersville—Iron-ore Mines.—The iron-ore properties recently reported as purchased by Joel Hurt, Equitable Building, Atlanta, Ga., president Iron Belt Railroad Mining Co., are not near Milledgeville, Ga., as was stated, but near Cartersville. These properties include 16,000 acres of brown-ore lands in Bartow county. The output is now 500 tons of iron ore a day, but this will be largely increased.*

Cedartown—Iron Mines.—The Oredelle Iron Co., Limited, has been formed for operating 1000 acres of iron-ore properties at Oredelle, near Cedartown, recently purchased by Northern capitalists for \$60,000 from the Marsh Mining Co. Col. W. F. Turner represents the new organization as local attorney.

Elberton—Cotton Mill.—The Pearl Cotton Mills is preparing to double its capacity, and will install additional spinning, slubbers, speeders, spoolers and carding machines; present equipment 4000 ring spindles.*

Hazlehurst—Saw Mill and Turpentine Stills.—T. B. Pace, whose saw mill was recently reported burned, will rebuild, either as a saw mill or shingle mill; is also establishing turpentine stills near Creola.*

Julysse—Rice Mill.—Wiley Smith has established a rice mill.

Macon—Cotton Factory.—Probably the erection of a cotton-wadding factory is contemplated by Lee M. Happ of 417 Cherry street.*

Marshallville—Medicine Factory.—J. E. Haslam, B. T. Moore, L. A. Rumph and W. S. Sheppard have incorporated the H. H. H. Company for the manufacture of proprietary medicines; capital stock \$20,000.

Montezuma—Electric-light Plant.—The Montezuma Light & Power Co. contemplates enlarging its plant.*

Thomasville—Saw Mills, etc.—Redden Smith, Redden Smith, Jr., W. B. Seymore and J. W. Hyde have incorporated the Smith Lumber Co. to own and operate saw mills, etc.

Waynesboro—Mercantile.—Chartered: The R. C. Neely Company by R. C. Neely and John A. Blount, with a capital stock of \$25,000.

KENTUCKY.

Highland.—Bids are invited until November 8 for the purchase of a franchise for laying pipe and supplying Highland with water; Wm. H. Band, secretary board trustees, Fort Thomas, Ky.

Louisla—Tie Elevator.—Efforts are being made for the establishment of a tie elevator to hoist ties from the river and load them on cars. Address J. F. Ratcliff.

Louisville—Distillery.—Chartered: E. C. Berry, with a capital stock of \$4000, by J. Roenbaum, R. G. Shipman, H. F. Spooner, all of New York, and others.

Louisville—Paint Company.—Chartered: The Central Paint Co., with a capital stock of \$30,000, by Charles O. Long of Louisville, J. V. Reed of Jeffersonville, Ind., and others.

Louisville—Distilleries.—Chartered: The Belle of Nelson Distillery Co., the Old D. L. Moore Distillery, John G. Roach & Co. and E. J. Curley, by J. Roenbaum, R. G. Shipman, H. F. Spooner, G. H. Westfall, all of New York, N. Y., and T. Darlington of Greenwich, Conn.; capital stock \$4000, \$4000, \$5000 and \$5000, respectively.

Louisville—Tobacco Factory.—It is reported that Pierre Lorillard of New York, W. H. Sheetz, John Whitman and E. W. Russell will organize a company, with a capital stock of \$1,000,000 for the erection of a tobacco factory in Louisville to employ 1000 operatives.

Owensboro—Distillery.—J. M. and E. W. Field have incorporated the Owensboro Distillery Co., with a capital stock of \$50,000.

Paducah—Harness Factory.—E. W. Smith is erecting building and will establish harness factory.*

Paducah—Iron Furnace.—Lackland & Co. of St. Louis have sold to a New York syndicate an iron furnace at Paducah built some years ago with capacity of 150 tons, which will be enlarged to 200 tons if another furnace is not built.

LOUISIANA.

Alexandria—Saw Mill.—The Tioga Lumber Co., Limited, organized with a capital stock of \$60,000, and J. Monroe Nugent, president; Daniel F. Clark, vice-president and general manager; Joseph G. Gingras, secretary-treasurer, is erecting a saw mill at Levine Station, near Alexandria, with capacity of 80,000 feet daily.

Lafayette—Saw Mill.—A saw mill, with capacity of 5000 feet, will be erected. Address A. D. Martin, P. O. Box 153.*

New Orleans—Rubber Factory.—W. Harrison Mason of San Jose, Costa Rica, the South American representative of the Pan-American Mining & Milling Co., is investigating with a view of erecting a \$50,000 plant in New Orleans for the manufacture of rubber ties, rubber shoes and boots, etc.

Vivian—Cotton Gin.—H. H. Huckaboy will replace his cotton gin recently reported burned with elevator system of two or three stands.*

MARYLAND.

Baltimore—Telephone Stations.—The Maryland Telephone & Telegraph Co. is having plans prepared by J. Evans Sperry for three sub-stations to accommodate 1000 'phones each and to cost \$5000 each.

Baltimore—Brick Plants.—The Baltimore Brick Co., Joseph L. Wilson, president, will expend \$100,000 in machinery and improvements in Baltimore.

Baltimore—Safe Works.—Chartered: The L. H. Miller Safe and Iron Works by Chas. W. Coggins, Jesse Slingluff, Lloyd L. Jackson, William H. Martin and Carroll T. Bond, to continue the L. H. Miller Safe Works; capital stock \$50,000.

Denton—Lumber Mill.—Henry W. Hughes, Frank S. Cole of Caroline county, George W. Eisenhower, Daniel MacLea and Robert H. MacLea of Baltimore, Md., have incorporated the Hughes Lumber & Coal Co. for the manufacture of lumber, having purchased the plant of Uhler & Hughes.

Elkton—Pulp and Paper Mills.—The Singlerly Pulp and Paper Mills are being overhauled and improved preparatory to beginning operations; the paper mills at Providence, near Elkton, will also be put in operation. Thomas Savory of Wilmington, Del., and others recently purchased the mills for \$105,000.

Elkton—Foundry.—The James F. Powers Company has been incorporated by James F. Powers, Dr. Charles M. Ellis, Thomas J. Murray and others, with a capital stock of \$20,000, to operate the Elkton foundry, which will be enlarged; will also manufacture castings of all kinds.

Oakland—Brick Works.—T. B. Williams of Morgantown, W. Va., is investigating with a view to establishing brick works in Oakland.

Williamsport—Knitting Mill.—The Blue Ridge Knitting Co. of Hagerstown proposes to establish a branch mill at Williamsport.

MISSISSIPPI.

Columbia—Mercantile.—Chartered: Wm. Atkinson & Foxworth Co., with a capital stock of \$30,000, by W. Atkinson and others.

Copiah County—Chartered: The Chautauqua Hotel, with a capital stock of \$5000, by A. L. Hutchinson, C. M. Huber and others.

Gloster—Gin.—The Gloster Gin Co. has been incorporated, with a capital stock of \$6000, by G. H. Barney, W. D. Johns, N. E. McLean and J. D. Causey.

Greenville.—Chartered: The Greenville Opera House Association, with a capital stock of \$25,000, by H. P. Hawkins, J. V. Bell, W. Isenberg and others.

Lauderdale—Lumber Company.—The Lauderdale Lumber Co. has been incorporated to conduct lumber business by R. Gambrel, L. B. Lesly, A. T. Gambrel and others; capital stock \$10,000.

Logtown—Turpentine Distillery.—Chartered: The Weason & Russ Company for the manufacture of turpentine, pitch, tar, rosin, etc., with a capital stock of \$25,000, by A. H. Russ, D. H. Weston, J. R. Otis and others.

McComb City—Cotton Mill.—The McComb City Cotton Mills, recently reported as organized, has elected J. J. White, president, and had plans prepared for a building to accommodate 6000 spindles, only 1000 of which, however, will be installed at the start.

Morehead—Cotton Mill.—A \$100,000 stock company will be formed for the erection of a cotton factory. C. H. Pond can give information.

Natchez—Hardware.—Chartered: The Baker & McDowell Hardware Co., with a capital stock of \$75,000, by A. L. Baker, S. McDowell and others.

Rosedale—Cotton Mill.—A. Y. Scott contemplates the erection of a cotton-yarn mill.*

Tupelo—Electric-light Plant.—An electric-light plant will be erected to cost \$7000. Address J. W. Hoyle.*

Vicksburg—Stone Quarries.—The Rankin Stone Co. has been incorporated, with a capital stock of \$5000, by C. O. Smith, L. Richardson, W. L. Smith and others.

West Point—Cotton Mill.—The West Point Cotton Mills has been incorporated, with capital stock of \$100,000, and will install a 5000-spindle plant. The incorporators are J. C. Williams, A. Carlisle, J. A. King, L. B. Smith, J. B. Paden, W. J. Beasley and J. T. Jones. This enterprise was located through the efforts of the industrial department of the Southern Railway, and was briefly noted in August last as to be erected.

MISSOURI.

Cartersville—Lead and Zinc Mines.—Chartered: The Roberta Mining Co., with a capital stock of \$25,000, by B. M. Kirker, Howard Gray and R. R. Reynolds.

Central City (P. O. Cagle)—Lead and Zinc Mines.—A company has been organized, with John D. Moore, president; John W. Jamison, treasurer, and John C. Christie, secretary, all of Rich Hill, Mo., for the development of 200 lots of lead and zinc lands in Central City.

Eminence—Lead and Zinc Mines.—The Eminence Land & Mining Co. has been incorporated, with a capital stock of \$6000, by J. H. Berkshire, John T. Bay, S. A. Cunningham and others.

Joplin—Lead and Zinc Mines.—J. A. Bowman and John M. Sculley, representing New York capitalists, have purchased 190 acres of lead and zinc lands in Joplin, including three large pumping plants, mill and other improvements, and will erect two additional mills at once.

Kansas City—Stone Company.—Chartered: The Bremer Cut Stone Co., with a capital stock of \$3500, by C. Bremer, A. C. Brandon, R. H. Skuse and others.

Kansas City—Cattle Company.—Chartered: The Fish Cattle Co., with a capital stock of \$190,000, by E. F. Swift of Chicago, Ill.; G. T. Hall of Kansas City and others.

Kansas City—Pump Works.—The Mexican Pump & Irrigation Co. has been incorporated to manufacture rotary pumps, etc., by F. D. Pelletier, C. E. Fearons, G. E. Stevens and others; capital stock \$30,000.

Kansas City—Lead and Zinc Mines.—Chartered: The Industrial Zinc Mining Co., with a capital stock of \$100,000, by A. F. Nathan, O. S. Bowman, John W. Young and others.

Kansas City—Lead and Zinc Mines.—The Missouri-Arkansas Zinc & Lead Co. has been incorporated, with a capital stock of \$1000, by C. H. Kirshner, G. C. Mosher, J. H. Cunn and others.

Kansas City—Lead and Zinc Mines.—Chartered: The Industrial Zinc Mining Co. to conduct a general mining and smelting business, with a capital stock of \$100,000, by A. F. Nathan, O. S. Bowman, J. W. Young and others.

Kansas City—Mercantile.—Chartered: The Teasdale Waist & Suit Co., with a capital stock of \$15,000, by Fred L. Teasdale and others.

Kansas City—Starch Company.—Chartered: The Eclipse Starch Co., with a capital stock of \$10,000, by W. G. Sherer, C. S. Demaree and E. M. Howell.

Kansas City—Grain Company.—Chartered: The H. J. Light Grain Co., with a capital stock of \$25,000, by Harry J. Light and others.

St. Louis—Hardware Company.—Chartered: The South End Hardware Co., with a capital stock of \$3000, by A. Holle and others.

St. Louis—Steel Plant.—The Scullin-Gallagher Steel Co. will erect a one-story foundry 400x215 feet and a boiler and engine-room 200x56 feet, to cost when completed \$125,000.

St. Louis—Iron and Steel Foundry.—The St. Louis Iron & Steel Foundry Co., reported last week as incorporated, has established a plant for the manufacture of iron and steel castings and for bridge and steel-build-

ing construction; steel department will have a capacity of twenty-five tons per day, and in the cast-iron department are two large cupolas; cost of plant \$40,000; A. W. Henry, vice-president and general manager.

St. Louis—Chemical Company.—Chartered: The Eureka Chemical Co., with a capital stock of \$10,000, by E. G. Tutt, Powell Jackson and R. H. Orr.

St. Louis—Printing, etc.—The Siebert Stationery & Printing Co. has been incorporated, with a capital stock of \$6000, by Charles Siebert and others.

Webb City—Lead and Zinc Mines.—Chartered: The Ohio Mining Co., with a capital stock of \$10,000, by J. W. Weber, John Buckel of Joplin, Thomas Gavin of Webb City and others, for the development of lead and zinc mines near Webb City.

NORTH CAROLINA.

Apalachia—Tannic-acid, etc., Plant.—The Apalachia Tannic Acid Co. has been incorporated, with a capital stock of \$25,000, by J. E. McCloy, Wm. H. Furbee, H. M. McCoy, J. B. Thomas and others for the manufacture of tannic acid and of dyes for coloring cloth.

Asheville—Saw Mills.—S. M. McEwen of Jefferson has purchased 11,000 acres of timber lands in Swain and Graham counties and will erect saw mills for developing the property.

Concord—Cotton Mill.—The Lippard & Shealy Manufacturing Co. will change its name to the Lippard Yarn Mill.

Concord—Cotton Mill.—The large 500-loom addition erected by the Odell Manufacturing Co., to be known as mill No. 5, and operating 100 looms, has begun operations, and 200 additional looms will be placed at once.

Elise (not a postoffice)—Lumber Mill.—J. G. Fousee and John B. Lening have formed the Elise Lumber Co. and will erect large lumber mill at Elise. Letters to either party, care of Durham & Charlotte Railway, Durham, N. C., will probably be delivered.

Elizabeth City—Knitting Mill.—The company recently reported as to be organized with a capital stock of \$25,000 for the erection of a mill will be known as the Elizabeth City Knitting Mills, with W. C. Glover, president; W. T. Old, vice-president; D. B. Bradford, secretary-treasurer.

Ether—Slate Quarry.—A company has been organized, with a capital stock of \$25,000, for the purchase and development of a slate quarry at Ether. Address William Tallman, Greensboro, N. C.*

Faison—Lumber Mills.—The Roland Lumber Co. of Baltimore, Md., George W. Jones, business manager, will erect lumber mill near Faison with capacity for cutting 75,000 feet per day, and a kiln that will dry full capacity of the mill.

Greensboro—Ice Plant.—The Greensboro Ice & Coal Co. will install a new ice plant with daily capacity of fifty tons.*

Mitchell County—Iron Mines.—A. D. Reynolds of Bristol, Tenn., has commenced the development of his magnetic iron-ore lands in Mitchell county under direction of B. F. Childers.

New Berne—Canning Factory.—The Carolina Canning Co. has been organized, with E. B. Hackburn, president, and William Dunn, secretary-treasurer, for the establishment of a canning factory with capacity of 10,000 cans per day.*

Reelsboro—Lath Factory.—Reelsboro Barrel Co., J. B. Reel, manager, will engage in the manufacture of laths.

Reidsville—Electric-light Plant.—The city is now installing electric-light plant, both street and incandescent, in connection with its water-works system, as recently reported; R. T. Williams, mayor.

Scotland Neck—Knitting Mill.—The Scotland Neck Cotton Mills will install new machinery to increase the capacity of its mills; present equipment 120 knitting machines.

Scotland Neck—Shirt Factory.—M. Hoffman, A. McDowell and Claude Kitchen will establish a shirt factory on Main street to employ 125 hands.

Scotland Neck—Shirt Factory.—A new shirt factory will be put in operation. Names of interested parties will be announced later.

Statesville—Tobacco Factory.—I. J. Sullivan of Lincoln county will establish a tobacco factory in Statesville.

Tarboro—Textile Mills.—W. E. Fountain and associates intend to establish several small industries, such as towel, handkerchief, rope and twine factories and silk mill.*

Wilmington—Planing Mill and Box Factory.—A. C. Emmons, late of Boston, Mass., representing Northern capitalists, has purchased a planing mill at Wilmington, will in-

crease its capacity and operate it, adding a department for the manufacture of boxes.

SOUTH CAROLINA.

Charleston—Electric and Machine Company.—The Cotton States Electric & Machine Co. has been incorporated, with Norman W. Girdwood, president; Fred M. Laxton, vice-president; R. R. Laxton, secretary-treasurer; capital stock \$5000.

Chesterfield—Lumber Company.—The Palmetto Lumber Co. has been incorporated, with a capital stock of \$75,000, by Ernest Williams of Lynchburg, Va.; E. R. Monroe of Coles Ferry, Va.; C. F. Omohundro of Keswick, Va.

Conway—Lumber Mill.—J. A. Brown and R. E. L. Brown of Chadbourn, N. C., reported recently as having purchased the Conway Lumber Co.'s plant, have, with W. H. Howell, incorporated the Brown Lumber Co., with a capital stock of \$10,000, to operate it.

Eureka—Flour Mill.—G. P. Selgier will establish a roller flour mill.

Gaffney—Cotton Mill, Electric-power Development, etc.—H. L. Spears has purchased for local capitalists water-power on Broad river near Gaffney, which will be utilized by operating a large cotton mill and an electric plant.

Georgetown—Telephone System.—The Georgetown Telephone & Telegraph Co., recently reported as incorporated, will extend the present telephone system at Georgetown, which it has purchased, and build a telegraph line to some outside communication.*

Greenville—Cigar Factory.—W. C. Crumley will establish a cigar factory.

Laurens—Laundry.—The Laurens Laundry Co., Thomas K. Hudgens, manager, will erect new building and place order for machinery at an early date.*

Pickens—Cotton Mill.—The movement recently reported as in progress for a cotton mill has resulted in the formation of the Pickens Mills, and commission for a charter has been issued, the capital stock being placed at \$300,000. The incorporators are Frank Hammond and W. J. Thackston of Greenville, S. C.; W. M. Hagood of Enslay, S. C.; J. E. Hagood and B. A. Hagood of Charleston, S. C.; J. McD. Bruce, W. T. McFall and J. P. Cary of Pickens, S. C. Only \$75,000 of the stock will be offered for general subscription. Arrangements will be made as early as possible to decide upon dimension of buildings, number of spindles and looms and other details. For further information address W. J. Thackston or Frank Hammond (president), Greenville, S. C.

Sumter—Knitting Mill.—A. W. Suder contemplates the establishment of a knitting mill.*

Sumter—Electric-light and Ice Company.—Chartered: The Sumter Electric Light & Ice Co., with capital stock of \$25,000, by Robert M. Wallace, Charles T. Mason and B. O. Purdy.

Westminster—Planing Mill, etc.—C. J. Mulkey will establish a planing mill and resaw.*

TENNESSEE.

Bristol—Iron Furnace.—The Virginia Iron, Coal & Coke Co. has put in blast the "Home" furnace, having daily capacity of 150 tons; two 250-horse-power boilers are being installed and a fourth stove is being constructed to increase the output fifty tons.

Bristol—Iron Mines.—C. M. Dulaney will develop the West Bristol iron-ore mine; an ore-washer will be erected.

Chattanooga—Foundry.—The Ross-Mehan Foundry Co. is erecting an addition to its plant in South Chattanooga; it is also stated that the company will secure the old Look-out Rolling Mill building and convert it into a foundry.

Chattanooga—Cotton Mill.—The Richmond Spinning Co. (organized early in the year to establish a 10,000-spindle mill) will increase its capital stock from \$150,000 to \$200,000 and will purchase additional carding machinery; this improvement will increase the daily capacity from 24,000 to 48,000 pounds.

Chattanooga—Brick and Tile Works.—The Southern Cement, Tile & Paving Co. has been incorporated, with a capital of \$10,000, for the manufacture of brick and tile by R. T. Isbester, J. M. Trimble, J. L. Graham, J. Frank Beard and others.

Chattanooga—Iron Furnace.—It is reported that Philadelphia and local capitalists have organized a company for the erection of a 150-ton blast furnace in Chattanooga. Names of interested parties will be announced later.

Chattanooga—Soil-pipe Works.—The Chattanooga Pipe & Foundry Co. has been organized, with a capital stock of \$50,000, for the purpose of manufacturing cast-iron soil pipe,

feedings and appliances. The principal parties interested are J. F. Casey and M. M. Hedges of the Casey & Hedges Manufacturing Co., and the new plant will be constructed of brick and stone and have a daily capacity of from twenty-five to fifty tons of soil pipe, located in South Chattanooga.

Chattanooga—Knitting Mill.—Plans, specifications and estimates for the proposed new underwear knitting mill lately reported to be erected have been completed. Names of interested parties will be announced later.

Chattanooga—Knitting Mill.—S. T. Dewees will erect an underwear knitting mill.

Chattanooga—Foundry.—The United States Cast Iron Pipe Works has decided to utilize the three-story brick building adjoining its present plant by converting it into a foundry; Charles Martin, manager.

Chattanooga—The Morgan Paper Co. has been incorporated, with a capital stock of \$3000, by D. George Morgan, D. B. Morgan, E. Y. Chapin and others to succeed the Chattanooga Paper Co.

Eagleville—Phosphate Lands.—Mr. Hastings, representing a Pennsylvania oil company, has leased 3000 acres of phosphate lands at Eagleville and is prospecting.

Fayetteville—Cotton Mill.—A movement is on foot for the erection of a cotton mill. This is distinct from the movement for water-power development and cotton manufacture recently reported.

Greenville—Flour Mill.—A. J. Patterson will build a 75-barrel flour mill.

Harriman—Coal and Timber Land Development.—Nedringhaus & Co. of St. Louis, Mo., have, it is reported, purchased 125,000 acres of coal and timber land near Harriman and will develop extensively.

Memphis—Mercantile.—S. C. Toof & Co. have been incorporated, with a capital stock of \$100,000, by W. H. Bates and others.

Memphis—Compress and Storage Company. The Adams Compress & Storage Co. has been incorporated, with a capital stock of \$50,000.

Nashville—Chartered: The McElwee Company of Blount county, with a capital stock of \$25,000, by F. B. McElwee and others.

Nashville—Knitting Mill.—The Nashville Hosiery Mills has been incorporated, with capital stock of \$100,000, to manufacture hosiery, underwear and knitting goods, by Jesse H. Thomas, William Morrow, J. M. Anderson and others.

Scott County—Timber Lands.—Thomas R. Lyon of Lyon, Cary & Co., Marquette Building, 204 Dearborn street, Chicago, Ill., has purchased about 32,000 acres of timber lands in Scott and Fentress counties, Tenn., but has not as yet decided what he will do as to developing it.

South Pittsburg—Flour Mill.—A flour mill will, it is reported, be erected. Names of interested parties will be announced later.

TEXAS.

Angleton—Irrigating Plant.—J. Q. Patterson is arranging to install an irrigating plant with capacity for ten acres.

Bastrop—Cotton-oll Mill.—Chartered: The Powell Oil Mill Co., with a capital stock of \$27,000, by W. E. Goodman, W. A. McCord and Chester Erhard.

Cameron—Cotton Ginnery.—C. W. Sawyer will rebuild his cotton gin recently reported burned; it will be a four 70-saw gin.*

El Paso—Foundry and Machine Works.—The Pass Foundry & Machine Co. has increased its capital stock from \$10,000 to \$20,000.

Ericdsdale (not a postoffice)—Townsite Company.—Chartered: The Ericdsdale Townsite Co., with a capital stock of \$10,000, by W. O. Wetherbee, J. K. Donnan, D. W. Doon and others.

Fort Worth—Water Works.—Resolutions have been adopted providing for the purchase of two air compressors for increasing the city water supply. Address Mayor Pad-dock.

Grundville—Cotton Gin.—W. N. Scott will rebuild his cotton gin recently reported burned; to be a two 70-saw gin.*

Henrietta—Cotton Gin.—J. M. Butterworth will probably rebuild his cotton gin recently reported burned.*

Houston—Paper-box Factory.—John Costello of Colorado Springs, Col., is in correspondence with E. C. Crawford, secretary to the Houston Manufacturers' Association, relative to establishing a paper-box factory in Houston.

Houston—Photo-supply Company.—Chartered: The Hoyer-Bering Photo Supply Co., with a capital stock of \$10,000, by G. W. Hoyer and others.

La Porte—Dock.—The La Porte Wharf &

Channel Co. is said to contemplate constructing another dock 1300 feet long and 200 feet wide.

McKinney—Drug Company.—Chartered: The Collins County Drug Co., with a capital stock of \$25,000, by J. M. McGill, J. S. Burgess and L. W. Seete.

Nacogdoches—Electric-light Plant and Telephone System.—The American Telephone & Telegraph Co., reported several months ago as incorporated for construction of a telephone system, has been granted franchise also for the erection of an electric-light plant.

Navasota—Cotton Mill.—J. J. Felder and J. M. Ackerman are endeavoring to organize a \$100,000 stock company for the establishment of a cotton mill.

Plano—Corn-shelling Plant and Electric-light Plant.—J. T. Stark & Co. will rebuild their corn-shelling plant and electric-light plant recently reported burned.

Runge—Cotton-oil Mill.—Jos. Landa & Son of New Braunfels, Texas, and local capitalists propose the establishment of a 40-ton cottonseed-oil mill in Runge.

Sherman—Drug Company.—The Greiner-Kelly Drug Co., now located at Paris and incorporated with a capital stock of \$100,000, and W. E. Greiner, president, will locate at Sherman and probably erect new building.

VIRGINIA.

Alexandria—Barytes Mill.—Baltimore (Md.) capitalists are reported as having purchased the property formerly occupied by the Haskins Wood Vulcanizing Works with a view to equipping it as a barytes mill.

Bristol—Soda-fiber Mill.—The Columbia Paper Co., E. L. Embree, treasurer, Buena Vista, Va., will erect a \$400,000 soda-fiber mill at Bristol, as was reported last week; building will be of stone and brick and the machinery will have a capacity of two carloads of bleached soda fiber per day.

Hampton—Power-house and Refrigerating Plant.—Edward D. Preston of Baltimore, Md., has received contract at \$107,392 for erecting the buildings of the new power-house and refrigerating plant at Hampton for the Newport News & Old Point Railway & Electric Co.

Norfolk—Conduit System.—The Virginia Electric Co. has applied to the city council for permission to place its wires underground.

Norfolk—Supply Company.—The General Supply Co. has been incorporated, with a capital stock of \$10,000, to conduct a general mill-supply business, by Walter H. Taylor, John C. Taylor, W. H. Taylor and others.

Petersburg—Butter-dish Factory.—A. W. Robinson & Co. of Sharpsburg, Md., have purchased 500 acres (estimated to have 75,000,000 feet) of timber, and will establish a plant for the manufacture of wire-end butter dishes.

Portsmouth—Improvement Company.—The Port Norfolk Investment Co. has been incorporated at Norfolk, with capital stock from \$20,000 to \$50,000, for improving property at North Portsmouth. John W. Cox is president.

Radford—Copper Mines, Rolling Mill, etc. T. W. Pratt, Huntsville, Ala.; Charles E. James, Chattanooga, Tenn.; N. F. Thompson, Huntsville, Ala., and J. M. Brosius, Terre Haute, Ind., have secured, it is stated, 280 acres of land near Radford and organized a company to develop the copper mines; also to erect a smelter and rolling mill at a cost of \$50,000.

Roanoke—Zinc Mines.—Charles F. Eggleston of Philadelphia, Pa., representing himself and other capitalists, has purchased the Martin zinc mines in Roanoke county for \$12,000 from the Roanoke Zinc & Silver Mining Co. and will develop on an extensive scale.

Rural Retreat—Charcoal Furnace.—The Lobdell Car Wheel Co., Wilmington, Del., reported last week as to put its White Rock charcoal furnace at Rural Retreat in blast, states it has not as yet decided whether it will put the plant in operation or not.

WEST VIRGINIA.

Barbour County—Coal Mines.—The Century Coal Co., recently incorporated under West Virginia laws, with a capital stock of \$1,000,000, by Alexander Shaw, Michael Jenkins, John Gill, Nelson Perin and Simon Rosenberg, all of Baltimore, Md., has purchased 12,000 acres of coal lands in Barbour and Upshur counties and will begin developments at once.

Buckhannon—Gas, etc., Company.—The Buckhannon Gas Co. has been incorporated to produce and sell natural gas for heating, lighting, etc., purposes; authorized capital \$20,000; incorporators, George V. Forman and others. The principal office will be in Buffalo, N. Y.

Charleston—Reduction Plant.—The Chemical & Electrical Ore Reduction Co. has been incorporated, with a capital stock of \$2000, to conduct a general mining and milling business; incorporators, J. E. Chilton, J. E. Seaggs, T. Popp and others.

Elkins—Coal and Lumber Company.—Henry G. Davis and S. B. Elkins of Elkins, Thomas B. Davis of Keyser, R. C. Kerens of St. Louis and C. M. Hendley of Washington have incorporated the Mill Creek Coal & Lumber Co., with an authorized capital of \$250,000.

Elkins—Coal Mines.—Henry G. Davis and S. B. Elkins of Elkins, Thomas B. Davis of Keyser, R. C. Kerens of St. Louis, Mo., and F. S. Landstreet of Davis have incorporated the Kerens Coal Co., with an authorized capital of \$100,000.

Fayette County—Coal Mines.—Robert L. Martin of Pittsburg, Pa., representing a party of capitalists, has purchased the Walters tract of coal lands in Fayette county, comprising about 300 acres.

Fairmont—Coke Plant.—Marcey McD. Price of Baltimore, Md., and J. A. Clark of Fairmont have leased the Adamston Coal & Coke Co.'s plant near Fairmont and will repair and operate it under the name of the Fairmont & Baltimore Coal & Coke Co.

Keyser—Woolen Mill.—Arnold C. Scherr of the Keyser Woolen Mills has organized a \$40,000 company to extend his woolen-factory operations. Stephen B. Elkins and Nathan B. Scott are among those interested.

Monongah—Coal Mines.—Hon. John N. Camden, S. D. Camden and Charles R. Alexander, all of Parkersburg, W. Va.; James A. Fichinger of Monongah, W. Va., and Charles K. Lord of Baltimore, Md., have incorporated the Monongah Coal Co., with an authorized capital of \$1,000,000, for mining.

Montgomery—Electric-power Plant.—The Kanawha Traction & Electric Co. will erect an electric-power plant; E. W. McCormick, manager Kanawha Electric Co.

Morgantown—Oil and Gas Company.—C. B. Dillo, D. H. Courtney, J. H. McDermott and others have incorporated the Iroquois Oil Co. to conduct a general oil and gas business; capital stock \$1,000,000.

New Martinsville—Iron and Wire Works.—The Architectural Iron and Wire Works has been incorporated, with an authorized capital of \$10,000, by E. A. Reich and Harry S. Reich of New Martinsville, Leo Reich of Cleveland, Ohio, and Julius Moskowitz of Wheeling, W. Va.

Phillippi—Brick and Tile Works.—The Phillippi Brick & Tile Co., lately reported as incorporated, will establish a plant to manufacture brick, tiles, crockery ware, etc., and possibly queensware.

Porter—Lumber Company.—J. W. Christman and others of Williamsport, Pa., have incorporated the Christman-Miller Lumber Co., with an authorized capital of \$100,000.

Stafford (not a postoffice)—Lumber Company.—Chartered: The Big Branch Lumber Co., with an authorized capital of \$10,000, by Charles E. Stafford and others.

Waverly—Oil Wells.—F. D. D. Bickely controls and is developing 1000 acres of oil lands in Pleasant county, and has at present twenty producing wells. Address after November 2 will be 435 Fourth street, Marietta, Ohio.*

Wheeling—Soap Factory.—T. K. Evans will establish a soap factory.

Wheeling—Bakery.—The National Biscuit Co. will double the capacity of its bakery.

Wheeling—Coal Mines.—The Wheeling Consolidated Coal Co., organized with David Bennett King of New York, president; Jerre A. Miller of Wheeling, vice-president, and John M. Birch of Wheeling, secretary-treasurer, and a capital stock of \$5,000,000, controls the leases on 40,000 acres of coal lands in Ohio, Brooke and Marshall counties; it also includes in its assets several working mines in the Wheeling district, including the Elm Grove Coal Co., the Glendale Coal Co., the Gilchrist, the Moundsville and other concerns.

Yankeedam—Saw Mills.—The David S. Collins Company (recently reported as incorporated) will operate four circular and two band saw mills, and in addition will erect a dimension mill; one mill is already in operation; company has not purchased its band saw mills as yet, but will install two seven-foot portables. Address David S. Collins.*

BURNED.

Bayou Sara, La.—Bayou Sara Lumber Co.'s plant.

Chipley, Fla.—J. R. McCloskey's turpentine distillery.

Corsicana, Texas.—Frank Ryan's gin; estimated loss \$3000.

DeKalb, Texas.—Crump & Peters' gin and grist mill; loss about \$2500.

Dudley, Mo.—The Gail House Hickory Mill; estimated loss \$5000.

Emporia, Va.—The cotton gin and saw mill of E. B. Rainey.

Glenwood, Ga.—McMillan & Co.'s turpentine still.

Great Cacapon, W. Va.—Noland & Kidwell Milling Co.'s roller mill; estimated loss \$5000.

Hagansport, Texas.—J. E. Mattinson's cotton gin; estimated loss \$2500.

Jonesville, La.—J. H. Boatner's cotton gin.

Puxico, Mo.—The Bradley Saw and Grist Mill; loss about \$2000.

Texarkana, Texas.—The Texarkana Broom Factory; loss about \$1000.

Tipton, Mo.—Tipton Shoe Factory; estimated loss \$12,000.

Vaughan, Miss.—The Munger gin plant; loss about \$3000.

Vidalia, La.—The Teconey cotton gin, leased by A. V. Davis.

Washington, D. C.—The Washington Wood-working Co.'s plant; estimated loss \$4000.

BUILDING NOTES.

Albany, Ga.—Jail.—The county will issue \$15,000 of bonds for erection of new jail for Dougherty county. Address "County Clerk."

Atlanta, Ga.—Library Building.—Limited competition for designs for the proposed Carnegie Library will be conducted soon. No plans have been made as yet. Address J. H. Dinwiddie, Equitable Building.

Bainbridge, Ga.—Hotel.—T. C. Wainman will erect a hotel.

Baltimore, Md.—Bathhouses.—Contracts for the first of the two public bathhouses to be erected in Baltimore were awarded to Israel Griffith for the building, to Wells & Newton for heating and ventilating apparatus, and to Rothrock & Co. for the plumbing. George Archer prepared the plans.

Baltimore, Md.—Warehouse Addition.—B. F. Bennett has received contract to erect the six-story addition to the warehouse of the Security Trust & Storage Co. recently reported.

Baltimore, Md.—Dwellings.—William E. Goldsmith will erect ten three-story dwellings.

Birmingham, Ala.—Hospital.—An additional building to cost about \$50,000 will probably be added to the St. Vincent's Hospital now in course of construction. Address Rev. Father Lannon.

Chattanooga, Tenn.—Depots.—H. J. Collier has secured contracts to build thirteen depots for the Richmond, Petersburg & Carolina Railroad along its line.

Chattanooga, Tenn.—Apartment-house.—Z. C. Patten will erect a large apartment-house.

Chattanooga, Tenn.—Building.—Dr. Wm. A. Shafer, No. 817 Whiteside street, is having plans made by Adams & Bearden for two-story brick and stone building to cost \$4000.

Columbia, Mo.—Hospital.—Contract for the erection of the Parker Memorial Hospital building has been awarded to B. F. Stewart & Sons at \$20,890, not including heating, ventilating and lighting.

Crowley, La.—Office Building.—The Crowley Signal will erect office building, two-story brick, with iron front; L. S. Scott, proprietor.*

Crowley, La.—Warehouse.—The Crowley Rice Milling Co., Limited, is erecting warehouse, as reported last week; capacity 25,000 sacks of rice; John Green, secretary.

Dahlonega, Ga.—Hotel.—It is reported that the Dahlonega Consolidated Gold Mining Co. will erect a 40-room hotel, with all modern conveniences.

El Paso, Texas.—Natorium and Business Block.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, has plans under way for a natorium and complete business block in El Paso.*

Gastonia, N. C.—Church.—The Methodist congregation is having plans prepared by Hook & Sawyer of Charlotte, N. C., for the erection of a \$15,000 edifice.

Little Rock, Ark.—Dormitories.—Three one-story dormitories, 120x16 feet, will be erected at the Deaf Mute Institute at a cost of \$5000.

Louisville, Ky.—Factory Building and Warehouse.—Ahrens & Ott Manufacturing Co. is having plans prepared by J. J. Gaffney for a three-story brick factory and warehouse to cost \$14,000.

Lynchburg, Va.—Tenement-houses.—Dennis P. Morrison, No. 204 Sixth street, is erecting a block of tenement-houses.*

Macon, Miss.—School.—The town has ad-

vertised for plans and specifications, to be opened January 1, 1900, for a two-story brick schoolhouse, with stone trimmings, slate roof and seating capacity for 400, to cost not over \$3000; built for modern heating and ventilation. Pay architect for plans taken. Address John R. Dinsmore.

Newnan, Ga.—Business Building.—J. W. Stripling is having plans prepared for store building 52x120 feet, to have solid glass and iron front and cost \$5000.

Norfolk, Va.—Theater.—Thomas G. Leath of Richmond, Va., is having plans prepared by Architect Kaufman of Pittsburg for an \$85,000 theater building in Norfolk, with seating capacity for 1500; when completed it will be owned by a stock company to be known as the Metropolitan Company; \$80,000 has been subscribed.

Paradise (P. O. at Catonsville, Md.)—Residence.—William E. Nagle has received contract to erect cottage for Daniel J. Brodyrick to cost \$6000.

Paris, Tenn.—Warehouse.—Porter & Barham will erect a large warehouse.

Piedmont, Ala.—Dwellings.—The Coosa Manufacturing Co. will build forty four-room houses.

St. Louis, Mo.—Hotel.—Thomas P. Miller, president of the St. James Hotel Co., will organize a company for the erection of a new 10-story fireproof hotel building to cost \$300,000.

Wadesboro, N. C.—Hotel Annex.—W. T. Brasington has received contract to erect the two-story 40x40-foot annex to the National Hotel.

Washington, D. C.—Apartment-house.—The Iowa Apartment House Co., reported during the week as incorporated with a capital stock of \$150,000, is having plans prepared by T. F. Schneider for a seven-story brick and stone apartment-house; Charles D. Wolcott, president.

Washington, D. C.—Buildings.—Plans are being prepared for new building, 53x100 feet, for the Riggs Bank. Plans have been prepared and contract awarded for a three-story building, 38x66 feet, and an adjoining chapel 22x66 feet, fronts of red brick and Indiana limestone, slate roofs, steam heat, etc., to cost \$35,000, for the Society of the Perpetual Adoration. Gilbert Moyers will erect two two-story dwellings, 17x60 feet, red-brick fronts, flat tin roofs, cost \$7000; also two brick dwellings to cost \$4000. A. C. Merrian will erect five three-story dwellings, press-brick fronts, furnace heat, etc., to cost \$15,000. Metcalf & Lewis will erect three two-story dwellings, press brick and Indiana limestone, flat tin roof and furnace heat, cost \$3000; also five two-story press-brick and brownstone dwellings, flat tin roofs, furnace heat, cost \$15,000. Washington Loan & Trust Co., alterations and repairs to cost \$10,000.

RAILROAD CONSTRUCTION.

Railways.

Atlanta, Ga.—The Atlanta Belt Railway Co. has organized by electing George C. Smith of the Atlanta & West Point Railroad Co. as president. It is announced that contracts have been let to the General Construction Co. to build this line, which will be five and one-half miles long, not including one and one-half miles of siding. Nearly all of the railroad companies entering Atlanta are represented in the Belt Line Company.

Bristol, Tenn.—The Virginia & Southwestern Railroad Co. has graded its extension in Carter and Johnson counties, a distance of twenty miles. The necessary bridges are now being constructed. J. M. Fitzgerald is assistant manager.

Caldwell, W. Va.—At the annual meeting of the Chesapeake & Ohio Railroad Co. the stockholders authorized the company to aid in the construction of the railroad along the Greenbrier river, which will be about 100 miles long, extending from Caldwell to a connection with the West Virginia Central & Pittsburgh Railroad. Surveys have already been made for this line. Decatur Axtell at Richmond, Va., is vice-president of the Chesapeake & Ohio.

Chattanooga, Tenn.—The work of changing the Lookout Mountain Railroad from narrow to standard gauge and converting it into a trolley line is nearly completed. J. T. Crass is president of the company.

Christiansburg, Va.—The Norfolk & Western Railway Co. will probably construct about fifteen miles of line to shorten its present route in Virginia. C. S. Churchill, at Roanoke, Va., is engineer.

Clarksburg, W. Va.—A report is current that the Pennsylvania Railroad has determined to construct a branch from Browns-

ville, Pa., to Clarksburg by the way of Morgantown, W. Va., and that the West Virginia Central will build a road to Clarksburg from Bellington.

Columbia, Ala.—A report is current that contracts for grading the Chattahoochee & Gulf Railroad have been let and that it is to be built as soon as possible from Columbia to Elton, Ala. A. V. Lane, at Savannah, Ga., is announced as being one of the principal promoters.

Columbia, Mo.—Surveys have been made for an extension of the Missouri Midland Railroad from Columbia to Mokane, as recently reported in the Manufacturers' Record. Charles Wiggins of St. Louis is president of the company.

Dothan, Ala.—The latest report relative to the Dothan, Hartford & Florida Railroad is to the effect that the Plant Railway & Steamship Co. has become interested and may construct it. The road is proposed from Dothan to what is known as St. Joe, Fla., a distance of 106 miles. J. P. Pelham is president, and H. C. Pelham, secretary and treasurer.

El Paso, Texas.—A report is current that the Southern Pacific Railway Co. has determined to shorten its division between El Paso and the Pacific coast by building another line through a portion of Arizona and New Mexico. W. G. Van Vleck, at Houston, Texas, is manager of the system.

Franklin, La.—Surveys are being made in the interest of the Louisiana Eastern Railroad between Franklin and Covington. J. M. Yates of Covington is engineer.

Grafton, W. Va.—The Central Coal Co., recently formed, it is expected, will have a railroad constructed about six miles long to connect property in Upshur county with a division of the Baltimore & Ohio. The company includes Alexander Shaw of Baltimore.

Havre de Grace, Md.—It is reported that surveys are being made to connect the York Southern Railroad with the Baltimore & Ohio near Havre de Grace. Messrs. Sperry, Jones & Co. of Baltimore are the present owners of the Southern.

Houston, Texas.—W. B. Moses of Fairfield, Texas, announces that the Union Central Railroad is to be built from Houston to a point on the Red river by the way of Paris, Texas. Silas Baldrige, a Kansas City banker, is reported as having made the necessary financial arrangements.

Indianola, Miss.—Among those interested in the Indianola & Sunflower Central Railroad, to be built from Indianola through a portion of Sunflower county, are R. P. Miller of Indianola and W. S. Barry of Greenwood, Miss.

Joplin, Mo.—The Southwestern Missouri Railway Co. has voted in favor of expending \$450,000 in improvements, which will include the relaying of a portion of the track and the purchase of additional equipment. Several extensions will also be made. A. H. Rogers of Joplin is one of the directors.

Keyser, W. Va.—Surveys are in progress for a railroad from Keyser to Petersburg by the way of Mansfield and Moorefield, W. Va. It is stated that the United States Leather Co. of New York is especially interested in the line, which will be about forty miles in length, if built.

Knoxville, Tenn.—Grading work has begun at several points upon the Knoxville & Bristol Railroad, of which H. M. Alken of Morristown, Tenn., is general manager.

Lockhart, S. C.—The promoters of the railroad between Lockhart and a connection with the Southern system have obtained a commission to build the line, which will be fifteen miles in length, extending from Lockhart Cotton Mills to the railroad in question. The company is capitalized at \$25,000, and includes John C. Carey of Lockhart and John B. Cleveland of Spartanburg, S. C.

Lynchburg, Tenn.—J. V. Garlington of Atlanta, Ga., one of the directors of the Wartrace & Lynchburg Railroad Co., writes the Manufacturers' Record that surveys have been completed and the company is ready to let contracts at once. It is also in the market for the necessary rails and equipment. Mr. H. H. Evans, president of the company, may be addressed at Aurora, Ill.

Mount Carbon, W. Va.—Relative to the proposed electric railway between Mount Carbon and Coalburg, a correspondent of the Manufacturers' Record writes that the road will be built from Mount Carbon to Hanley and eventually extended to Coalburg. The distance to Hanley is seven miles. The capital will be \$75,000, and the company will issue \$50,000 in bonds to finance the enterprise. It has secured a right of way along the county roads. J. Q. Dickinson of Charleston, W. Va., is reported as connected with the enterprise.

Norfolk, Va.—The Cape Henry Land & Im-

provement Co., which has been incorporated, is having a survey made for a railroad between Norfolk and Cape Henry, which will be operated by electric or steam power.

Parrish, Ala.—A report is current that the Southern Railway Co. has determined to extend the Northern Alabama division a distance of twelve miles to reach mines in the Warrior coal district. W. H. Wells, at Washington, D. C., is chief engineer.

Perry, Ga.—A correspondent of the Manufacturers' Record writes that a New York syndicate has been obtaining information relative to the proposed railroad between Hawkinsville and Perry, a distance of twenty miles. No company has been formed as yet to take up the enterprise. John H. Hodges of Perry is one of the local parties interested.

Pomona, Mo.—The latest report concerning the St. Louis, Sioam & Southern Railroad is to the effect that H. D. Mackay, president of the company, at Pomona, has awarded a contract for constructing 110 miles of this road.

Richmond, Va.—The latest report concerning the Richmond & Tidewater Railroad is to the effect that four counties along the line have voted in favor of taking \$130,000 in stock in the road. The company is to be organized at Richmond on November 2. In addition to Miles M. Martin, H. L. Valentine and Fairfax Christian are mentioned in connection with the enterprise.

Sabine, Texas.—The proposed Sabine, Houston & Northern Railroad is to be fifteen miles in length, and it is reported that right of way has been secured. Charles Sutler of St. Louis, Mo., is president, and J. W. Brownlee of Sabine, secretary of the promoting company.

Saluda, S. C.—The people of Saluda county, it is reported, have raised the necessary guarantee fund to insure the grading of the railroad from Saluda to a connection with the Southern system. It is stated that the Southern Company has agreed to complete the road if the bed is graded and right of way secured.

Seaboard, Ala.—S. T. Prince of Mobile, Ala., general manager of the Seaboard Railway, confirms the report in the Manufacturers' Record that this line is about to change hands. It is understood that it will probably be extended a distance of about fifteen miles from its present terminus to Healing Springs, Ala.

Union, S. C.—It is reported that work is about to begin upon a railroad from Union to Buffalo, a distance of three miles, and that it may be extended to Glenn Springs, a distance of seventeen miles.

Waycross, Ga.—President J. E. Wadley of the Waycross Air Line Railroad writes the Manufacturers' Record that the company proposes to extend its line a distance of nine miles at once. It will probably be built to Fitzgerald, Ga., in the near future.

Wilkesboro, N. C.—Frank B. Hendren, mayor of Wilkesboro and one of the promoters of the proposed electric line to Taylorsville, writes the Manufacturers' Record that the road will be about thirty miles long and run through a portion of the State which produces large quantities of live-stock, vegetables and poultry. It is intended to form a connection with the Southern system at Taylorsville.

Street Railways.

Kansas City, Mo.—It is announced that the Metropolitan Street Railway Co. has determined to complete the electric lines on Independence avenue and Ninth street early during the next year. W. H. Holmes is president of the company.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Bell Manufacturers.—E. F. Bell, Hickory, S. C., wants prices on church bells.

Boller.—See "Canning Machinery."

Boller and Engine.—J. T. Barnhill, manager Tar River Mills, Tarboro, N. C., wants

a 150-horse-power boiler and a 75-horse-power engine.

Boller and Engine.—See "Cotton Gin."

Boller and Engine.—Montezuma Light & Power Co., Montezuma, Ga., wants an 80-horse-power automatic compound or double compound engine, and a 125-horse-power boiler.

Boller and Engine.—Wanted—Thirty-horse-power locomotive boiler and engine to go with it for saw-mill use. Address P. O. Box 284, Richmond, Va.

Bollers.—See "Plumbing Supplies."

Bollers and Engines.—See "Well-drilling Equipment."

Bollers and Engines.—Iron Belt Railroad Mining Co., Joel Hurt, president, Equitable Building, Atlanta, Ga., is in need of mining machinery, such as self-contained boilers, ranging from fifty to 100 horse-power each, and one or two 25-horse-power engines for working ore-washers.

Brick Manufacturers.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, desires to correspond with manufacturers of tiled brick.

Buggy Manufacturers.—E. W. Smith, Paducah, Ky., wants catalogues from buggy manufacturers.

Building Materials.—Dennis P. Morrison, No. 204 Sixth street, Lynchburg, Va., wants to purchase wrought-iron guard and hand-rail for areas; also mantels, tiles, combination fixtures and about 15,000 feet No. 2 North Carolina seven-eighths flooring.

Butter-dish Machinery.—See "Woodworking Machinery."

Canning Machinery.—Carolina Canning Co., William Dunn, secretary, New Berne, N. C., wants estimates on complete machinery for canning factory with capacity of 10,000 cans per day, including a 100-horse-power boiler.

Carpenters and Plumbers.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, wants to correspond with carpenters and plumbers who are open for contracts; material supplied.

Cement Machinery.—J. F. Williams, superintendent Ingleside Mining & Manufacturing Co., Charleston, S. C., desires information as to the manufacture of Portland cement from marl and clay, and would like to correspond with those having receipts and machinery.

Cornice and Metal Workers.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, wants to correspond with cornice and metal workers.

Cotton Gin.—H. H. Huckaboy, Vivian, La., will want to purchase ginnery (elevator system) of two or three stands, including 30-horse-power engine and 40-horse-power boiler, revolving double-box press, etc.

Cotton Ginnery.—J. M. Butterworth, Henrietta, Texas, wants a three 70-saw cotton gin.

Cotton Ginnery.—W. N. Scott, Grundyville, Texas, wants prices, etc., on two 70-saw ginnery, including condenser, pulleys, press, air distributor, etc.

Cotton Ginnery.—C. W. Sawyer, Cameron, Texas, will want four 70-saw gin complete.

Cotton Mill.—Lee M. Happ, 417 Cherry street, Macon, Ga., wants addresses of manufacturers of machinery for making cotton wadding.

Cotton Mill.—A. Y. Scott, Rosedale, Miss., wants full information concerning manufacture of cotton yarns, estimates on cost of machinery, etc.

Cotton-mill Machinery.—See "Textile Machinery."

Cotton-mill Machinery.—Machinery consisting of slubbers, speeders, spinning, spoolers and cards will be wanted to double capacity of 4000 ring-spindle mill. Address either Pearl Cotton Mills, Beverly, Ga., or T. M. Swift, president, care of House of Representatives, Atlanta, Ga.

Dam Equipment.—Frank McMann, Pettit, W. Va., needs a new or second-hand ratchet works for raising a heavy drop-gate in splash dam.

Dredges.—Sealed proposals for two dipper dredges will be received until November 3 at the U. S. engineer office, Montgomery, Ala. Information furnished on application to C. A. F. Flagler, captain engineers.

Dredging.—U. S. engineer office, Galveston, Texas, will receive sealed proposals in triplicate until November 15 for deepening channel from Galveston harbor to Texas City. For information apply to C. S. Riche, captain engineers.

Dry-kiln.—Variety Works Co., Dawson, Ga., is in the market for a dry-kiln for drying pine lumber, capacity of about 7000 feet per day.

Electrical Machinery and Supplies.—A. J. Howell, Jr., Box 32, Wilmington, N. C., wants to correspond with manufacturers relative to the establishment of an electrical-supply house (this party's address lately given as Wilmington, Del., by error).

Electric-light Plant.—J. W. Hoyle, Tupelo, Miss., will soon want bids on a \$7000 electric-light plant.

Electric-light Plant, etc.—Montezuma Light & Power Co., Montezuma, Ga., wants a 1200-incandescent or an arc-light plant and other supplies.

Elevator.—Casey & Hedges Manufacturing Co., Chattanooga, Tenn., wants to purchase a five-ton cupola elevator, sixteen to eighteen feet lift, new or second-hand.

Elevators.—E. W. Smith, Paducah, Ky., will be in the market for one or two electric elevators.

Engine.—E. W. Smith, Paducah, Ky., is in the market for a second-hand 40 or 50-horse-power engine.

Engine.—C. D. Benbow, Pinehurst, N. C., is in the market for a No. 1 second-hand Westinghouse engine from fifteen to thirty horse-power.

Engine.—T. B. Pace, Hazlehurst, Ga., needs six or eight-horse-power engine and pump.

Fencing.—Dennis P. Morrison, No. 204 Sixth street, Lynchburg, Va., wants to purchase about 300 lineal feet iron fencing, posts, gates, etc., twenty to twenty-four inches high.

Fire-department Equipment.—Smith, O'Neal & Boyd, Huntsville, Ala., will receive bids for furnishing the city a hose wagon, with chemical attachment, and 2000 feet of rubber-lined hose.

Foundry Equipment.—See "Elevator."

Furniture Manufacturers.—L. S. Scott, Crowley, La., wants to correspond with manufacturers of office furniture, office counters with wire screening, glass-front counters, showcases, etc.

Harness Machinery.—E. W. Smith, Paducah, Ky., wants to purchase saddle and harness hardware and machinery necessary for the manufacture of harness, leather, etc.

Heating and Ventilating Apparatus.—Sealed proposals will be received until November 18 at the Treasury Department, office of James Knox Taylor, supervising architect, Washington, D. C., for the heating and ventilating apparatus, complete in place, for the United States courthouse and postoffice building at Norfolk, Va., in accordance with drawings and specifications, copies of which may be had at the above office or at office of the superintendent at Norfolk.

Ice Machinery.—Geo. C. Aydelott, Tullahoma, Tenn., wants to correspond with builders of ice plants relative to a 10 or 20-ton plant.

Ice Machine.—G. F. Heard, Brooksville, Miss., wants to purchase a 10 to 20-ton second-hand ice machine.

Ice Plant.—Greensboro Ice & Coal Co., Greensboro, N. C., will need new boilers, coils, ice cans, etc., for 50-ton plant.

Ice-plant Supplies.—F. M. Stansbrough, No. 227 Liberty street, Jacksonville, Fla., desires to purchase a second-hand Hoppes purifier and ammonia condenser, either atmospheric or submerged.

Iron Railing.—See "Building Materials."

Knitting Machines.—J. B. McDonald, Fort Meyer, Va., wants information relative to installing knitting machinery to utilize product of 10,000-spindle yarn mill; wants estimates, etc.

Knitting Mill.—A. W. Suder, Sumter, S. C., will be in the market for equipment for knitting mill.

Laundry Machinery.—Laurens (S. C.) Laundry Co., Thomas K. Hudgens, manager, will soon place order for laundry machinery.

Lead.—Sealed proposals, endorsed "Proposals for pig lead," addressed to the board of awards, Baltimore, Md., will be received at office of city register, City Hall, until November 1, for furnishing and delivering to the water board of Baltimore city 150 tons of Omaha pig lead; must be of the best quality and delivered free at the Gay-street yard of the water department. Each proposal must be accompanied by certified check for \$1200; bond required. Usual rights reserved. William L. Kenly, chief engineer.

Logging Equipment.—See "Stump-pulling Machinery."

Lumber.—See "Railway Equipment."

Lumber Dealers.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, wants to correspond with lumber dealers or mills in the Southwest that will quote low prices on from ten to twelve cars of pine lumber (according to specifications).

Machine Tools.—Sprout, Waldron & Co.,

Muncy, Pa., is in the market for one gap-chuck lathe with a 36-inch swing for boring pulleys.

Mining Equipment.—See "Boilers and Engines."

Miscellaneous Merchandise, etc.—Manual Munoz Landero, Apartado 2056, Mexico City, Mexico, wants catalogues, price-lists, discounts, terms, etc., from manufacturers of carriages and harness, household furniture, textures for curtains, general furniture, clothing, linen drapery, jewelry, musical instruments, novelties, etc.

Piping.—American Copper and Brass Works, No. 614 East Front street, Cincinnati, Ohio, is in the market for iron pipe and fittings.

Planing Mill.—C. J. Mulkey, Westminster, S. C., wants to purchase necessary machinery for planing mill and resaw.

Plumbing Supplies.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, wants to correspond with dealers in plumbing supplies, including steam boilers, pumps, etc.

Pump.—See "Engine."

Quarrying Machinery.—William Tallman, Greensboro, N. C., will want slate-quarrying machinery.

Railway Equipment.—Davis S. Collins, Yankeedam, W. Va., will want two second-hand geared locomotives, ten to twelve tons, for use on narrow-gauge wooden rail; one 20-ton engine or upward for standard-gauge iron rail.

Railway Equipment.—Longdale Iron Co., Longdale, Va., wants to buy 5000 five-foot railroad ties. Prices and specifications can be obtained by addressing J. E. Johnson, manager.

Railway Equipment.—The Wartrace & Lynchburg Railroad Co. is in the market for iron and full equipment for railroads. Address H. H. Evans, Aurora, Ill.

Saw Mill.—See "Planing Mill."

Saw Mill.—Prices are wanted on a 5000-foot-capacity band saw mill. Address A. D. Martin, P. O. Box 153, Lafayette, La.

Saw Mill.—J. T. Barnhill, manager Tar River Mills, Tarboro, N. C., is in the market for a complete circular saw mill of 20,000 feet capacity, new or second-hand.

Saw Mills.—Davis S. Collins, Yankeedam, W. Va., will want to buy machinery for two band saw mills.

Showcase Manufacturers.—See "Furniture Manufacturers."

Skylights.—Dennis P. Morrison, No. 204 Sixth street, Lynchburg, Va., wants to purchase six small skylights.

Stump-pulling Machine.—Real Estate Management Co., Ensley, Ala., wants to purchase a stump-pulling machine, and wants full information regarding same.

Telegraph Supplies.—See "Telephone Supplies."

Telephone Supplies.—Georgetown (S. C.) Telephone & Telegraph Co., S. S. Ingman, secretary, wants estimates on telephone and telegraph supplies.

Textile Machinery.—W. E. Fountain, Tarboro, N. C., wants to correspond with manufacturers of machinery for rope, twine, towel, handkerchief and silk mills.

Toothpick Machinery.—W. T. Havens, 330 Ann street, Frankfort, Ky., wants addresses of manufacturers of machinery for making wooden toothpicks.

Tunnel Contractors.—C. E. Bailey, No. 213 West Fifty-eighth street, New York city, wants to correspond with contractors for driving a tunnel 400 feet, now in 800 feet, with a complete power plant installed, including air compressor and drills for driving mines.

Water Works.—Bainbridge, Ga., asks bids, to be opened November 15, on construction of water works, including four miles of pipe, standpipe, air compressor, pumping engines, etc. Check for 5 per cent. of amount of bid required. Plans and specifications are on view at city clerk's office or at office of the engineers, Moore & McCrary, 407 English-American Building, Atlanta, Ga. Specifications can be had on application to E. J. Willis, mayor, or to Moore & McCrary at address above.

Well-drilling Equipment.—F. D. D. Bickley, Waverly, W. Va., will probably want to purchase casing, boilers, engines, tubing, iron and brass fittings, belting and cordage.

Wire-counter Manufacturers.—See "Furniture Manufacturers."

Wire-working Machinery.—See "Woodworking Machinery."

Woodworking Machinery.—A. W. Robinson & Co., Sharptown, Md., are negotiating for machinery suitable for making wire-end butter dishes.

Woodworking Machinery.—F. S. Hoag, General Delivery, McKeesport, Pa., is in the market for new or second-hand veneer machine to cut from twenty to thirty-six inches, and for a veneer machine to cut logs from forty-eight to sixty-eight inches long, both machines to take impression rollers for light and heavy work.

Woodworking Machinery.—See "Planing Mill."

Woodworking Machinery.—See "Toothpick Machinery."

Woodworking Machinery.—Paris (Texas) Trunk Co. is in the market for two veneer machines, etc.

Woodworking Machinery.—Birmingham Buggy Co., corner Seventeenth street and 2d avenue, Birmingham, Ala., is in the market for a second-hand foot-power dash machine.

TRADE NOTES.

Can You Estimate the Cotton Crop?—To the one estimating nearest to the exact number of bales that will come from the cotton crop of 1899-1900 a prize of \$1000 is offered by prominent cotton brokers of New York city. The firm is Messrs. S. Munn, Son & Co. of 56 Beaver street. (For further particulars see advertisement.) All estimates must be mailed by 12 o'clock, noon, November 25.

Western Office of Bliss Co.—The E. W. Bliss Co. of New York announces that its Western office in Chicago has been changed from 96 West Washington street to 22 South Canal street. At the new address a line of standard machines is on view, Mr. W. S. Smith being in charge. The Bliss line of presses, dies and special machinery is too well known to need further comment at this moment.

New Ice Plants.—A six-ton refrigerating plant and a one-ton ice factory will be built complete for the Ohio & Pittsburgh Milk Co.'s depot by the York Manufacturing Co. of York, Pa. Another contract secured by the York Manufacturing Co. is to furnish complete a 30-ton ice plant for the East Orange Ice Manufacturing & Distributing Co. of York. This will be a latest-improved brine circulating plate system.

Woodworking Factory for Sale.—A growing and successful East Tennessee town has within its borders an active plant for wood-working which is offered for sale. The plant is fitted to work entire cut of timber tracts into lumber, handles of all kinds, insulator pins, brackets, dowels, etc. The business is now making money on a good cutting contract. Railway facilities are at hand. (See advertisement of Lock Box 281.)

Want to Buy Saw and Shingle Mill?—The lumber business is very active nowadays and opportunities to secure established plants are not plentiful. One of the few opportunities now presented to secure an extensive and complete mill for sawing lumber and shingles is contained in the offer of the Exchange Banking & Trust Co. of Charleston, S. C. The property is located on the banks of the Pee Dee river. (See advertisement.)

West Virginia Coal Lands.—It frequently happens that in the course of the settlement of estates good properties are put on the market at figures that are very attractive for investment. Such an offering as indicated is presented by Mr. Eugene C. Massie of Richmond, Va. Mr. Massie offers West Virginia coal lands, fronting on Kanawha river and on railway, for sale. Several mines are in active operation on the property under profitable leases.

Magnolia Metal and the Railroad Trade.—Arrangements have been completed recently whereby the Q. & C. Co. of Chicago and New York becomes the exclusive agent for the railroad trade for Magnolia metal. This agency covers the United States, Mexico and Canada. The Metal Sales Co. of 15 South Water street, Cleveland, Ohio, has been appointed sole agent for Ohio, Indiana and Michigan. The Magnolia Metal Co., sole owner and manufacturer of Magnolia metal, of 266 West street, New York city.

Emery Planing Machines.—The increasing size of locomotives has necessitated a change in the emery planing machines which are used for facing many different parts of a locomotive engine. Owing to this necessity the Pennsylvania Railroad Co. contracted some months ago with the Tanite Company of Stroudsburg, Pa., for the building of a new and improved emery planer for the Altoona shops. This machine is now in course of construction and will be the largest of the kind yet built, weighing in the neighborhood of a ton and one-half. The machine in question is a modification of the

well-known Newman emery planer, which is used not only by railroads, but by the makers of dies and other case-hardened work.

Southern Gold Mines.—For the past several years there has been a decided revival of activity in the development of the gold-bearing sections of the South. Many valuable gold mines are now in successful operation, paying good dividends, and new mines are constantly being opened. Improved machinery has been a marked contributor to this development. An opportunity to secure the "Flint Hill" gold mine is offered by J. E. Jeffries, clerk of court at Gaffney City, S. C., the sale being caused by legal action. (See advertisement.)

Automatic Steam Towing.—The use of automatic steam towing machines is steadily making its way in the marine world. One of the most successful of automatic steam towing machines that has been in use is that made under the Shaw & Spiegle title by the American Ship Windlass Co. of Providence, R. I. The company also carries a large stock of engines for windlasses, capstans and winches, and is therefore generally prepared to furnish steam windlasses, steam capstans and steam winches at reasonable notice.

Ensley's New Ice Plant.—There has just been completed at Ensley, near Birmingham, Ala., an ice plant of twenty-five tons capacity, with machinery already on the ground for doubling the capacity, which will be done during the winter. The Ensley-Pratt Ice Co. owns and operates the plant. Being located near a creek, water will be plentiful in case of accident or other cause making the regular supply scanty. Trackage is afforded with the trunk lines of railroad entering Birmingham, so that the product can be shipped with every facility.

Cooperage Machinery for Denmark.—American manufacturers of machinery of all kinds win laurels repeatedly in competition with the world. The latest reported contract placed with an American machinery maker is reported from Buffalo, N. Y. This contract calls for a lot of machinery for the extensive cooperage of Messrs. L. Jacobsen & Co. of Copenhagen, Denmark. A representative of this firm visited Germany, England and this country looking for machinery to suit their purpose, and after seeing that of the E. & B. Holmes Machinery Co. of Buffalo, N. Y., gave that firm a good order.

Of Interest to Road Contractors.—The South in many sections has taken hold of the good-roads movement in earnest. Many districts in Southern counties have miles of the best macadamized roads that it is possible for the modern road-builder to construct. One of the progressive counties in this movement for improved highways is that of Bradley, in Tennessee. This Bradley county is soon to award contracts (bids to be opened November 11) for about ninety-five miles of gravel and macadam roads. Mr. J. T. Harle, chairman of county commissioners, Cleveland, Tenn., can be addressed for further particulars. (Advertisement in this issue.)

Hardwood Lands in Louisiana.—There are millions of acres of lands in Louisiana containing a wealth of timber just waiting for developments to assist in supplying the hardwood markets of the world. At times large tracts of these lands are offered to purchasers at a low figure, and one of these times is at hand, the firm of Messrs. Atwood Violett & Co. offering the property. They have 1,000,000 acres for sale at \$2 per acre, most of the land being of alluvial bottom, susceptible of cultivation after the timber is removed. For full particulars address the firm at 30 Broad street, New York city.

Semi-Smokeless Cartridges.—Sportsmen continue to talk in the highest terms of the good qualities of the semi-smokeless cartridges of the Peters Cartridge Co. King's smokeless powder is used in loading these cartridges. They are found by users to be accurate, clean and sure to fire. Frequently shooters ask their companions regarding the cartridges the latter are using and find the Peters semi-smokeless is the article. These cartridges are used for gun or rifle and their good shooting qualities impress everyone that tries them to such an extent that in many cases after a first trial they will have no other.

Steel for Various Purposes.—The steel works at Cumberland, Md., the property of the Baltimore & Ohio system, have been recently acquired upon long lease by a Pittsburgh syndicate represented by Mr. S. J. Macfarren, the well-known traction engineer of that city. They have organized the Potomac Steel Co., whose card appears in another column. The mills, which have not been in

use for some years, have been rehabilitated and modernized, and are ready for work as we go to press. They will make a specialty of light sections steel rails, joints, ties and equipments for mining, lumbering, plantation and factory uses. They will cultivate Southern and export trade, for which the location is excellent, and will undoubtedly get a liberal share of the abundant trade in their line.

Contracting for Ice Plants.—The ever-increasing use of ice and refrigerating machinery continues to make busy times for the makers of that class of apparatus. In every section of the country plants are being established. One of the most popular machines built is that known as the "Linde," constructed by the Fred W. Wolf Co. of Chicago. During the past few weeks the company has furnished machines as follows: 75-ton ice plant complete at Beaumont, Texas; two 18-ton refrigerating machines and ice plant at Gainesville, Texas; 50-ton ice plant and same capacity refrigerating plant at Chicago for a brewing company; 25-ton refrigerating plant at Richmond, Va.; two 12-ton refrigerating machines at Waco, Texas, for a packing-house; 25-ton ammonia condenser at Lexington, Ky.; direct-expansion piping for Chicago apartment building.

Of Interest to Compress Managers.—Machines for riveting purposes have a very general use both in and out of machine shops, foundries and similar establishments. A dependable riveting machine is an apparatus that is in demand also in many establishments, especially throughout the South, that are not primarily shops. For instance, compress managers can find of the utmost value a complete riveting machine for mending cotton-tie bands, and others in other lines of industry find them an additional facility in the conduct of business. One of the most complete riveting machines on the market is the production of the Capital City Machine Works of Columbus, Ohio. This machine is the result of years of experience in the manufacture of those in its class, and it is far in advance of many other riveters offered. Those desiring further particulars may address the company.

Church Heating and Ventilation.—One of the class of buildings not capable of proper heating and ventilation by other than the most approved apparatus is a church. Proper heating and ventilation of any structure is a problem not usually solved except by those well versed in the processes and apparatus required, and manufacturers in the furnace line have concentrated their efforts on such heating and ventilation with varying results. One of the prominent concerns of this country engaged with success in the manufacture and equipment of such plants as referred to is the Kelsey Furnace Co. of Syracuse, N. Y. Building operations being very active in the South at present, the company expects to obtain a fair share of the heating contracts that will be available in that section. The company's most recent completed contract was to heat and ventilate St. George's Church at New Orleans, wherein it installed two No. 30 Kelsey generators under the supervision of Mr. W. W. Sumner, its agent, a well-known local heating and ventilating expert.

Exhibit of Merchant & Co.—Merchant & Co., Inc., of Philadelphia, New York, Brooklyn and Chicago, extend an invitation to pay a visit to their exhibit at the National Export Exposition at Philadelphia, Section D-6, main building. The exhibit itself is a novel one, consisting of a handsome booth covered with Merchant's Spanish tiles, and having two "Star" ventilators, one of the "Standard" form and the other of the glass-top "Skylight" form. Above this roof there is an apparatus which distributes water in the shape of rain, so that the visitor has a practical example of the value of good roofing as a protection against the weather. Within the booth is a full line of the product of Merchant & Co.'s smelting works, consisting of the largest line of babbit metals produced in America, as well as every description of solder and newspaper metals; also a full sample line of Merchant's high-grade roofing and bright tinplates, metal ceiling; also brass tubing, which they handle in very large quantities. This exhibit will be of marked interest to everyone, and is well worth a visit by those interested in the best bright orterne tin, in ventilators and in the general line of roofing material; also to the numerous manufacturers and users of machinery who require brass and copper goods, and babbit metals.

Acetylene Generator.—The Auto-Acetylene Company, 13-21 Park Row, New York city, has upon the market an acetylene generator which is thoroughly reliable. The increased demand for this machine during the past

year made it necessary to enlarge considerably the factory facilities at Brooklyn. The demand in Europe has been so constant that the company was obliged to provide manufacturing facilities there and established a factory at Boulogne-sur-Seine, Paris, to supply the continent. The company's headquarters in Europe are 27 Rue de Richelieu, Paris, and at latest reports the demand for the apparatus was exceeding the capacity of the factory. This is one occasion where acetylene apparatus invented in this country has been introduced in Europe successfully, and as the French people have been earnest workers in the acetylene-gas industry, and have produced a variety of generators, it appears that this has excelled all others in the European market. The auto-generators are made from best materials throughout, and subjected to thorough tests before leaving factory. They are provided with two or more carbide chambers to each generator and a condenser purifier, which cools, dries and purifies the gas. The water-deal attachment and safety gauge are entirely automatic, and a uniform pressure best suited for the gas is constantly maintained. The whole apparatus is self-contained, requires no attention, and cannot get out of order. When once the proper pressure of gas is determined, the regulator is set for that pressure, and it cannot vary. The gasometer is correctly proportioned to the capacity best suited for the average flow of gas, and is given the greatest free range of movement. The Auto-Acetylene Company is now prepared to furnish generators of from five to 3000-light capacity, and is shipping a variety of machines to all parts of the country.

TRADE LITERATURE.

Direct-current Multipolar Motors.—The Bullock Electric Manufacturing Co. of Cincinnati has issued bulletin No. 1335, relative to its direct-current multipolar motors.

Machinery for All Sheet-metal Work.—A very concise illustrated pocket booklet of the E. W. Bliss Company's machinery has been issued. This company's line of presses, dies, shears and special machinery for all sheet-metal work is well known throughout this country and Europe. Office at 17 Adams street, Brooklyn, N. Y.

Advertising Booklet.—The Manufacturers' Advertising Bureau of 126 Liberty street, New York city, makes a specialty of trade-paper advertising, and is prepared to make contracts with manufacturers regarding the care of advertising. The bureau's booklet, "Advertising for Profit," may be had upon presentation of business card, by mail or otherwise.

Electricity.—An interesting brochure is that entitled "Electricity," which has been issued recently. Present and prospective users of electricity throughout the country will find material for consideration in this booklet. The Crocker-Wheeler Co. of 39 Cortlandt street, New York city, manufacturer and electrical engineer, will send copy to anyone requesting it.

Wire and Iron Fencing.—The use of wire and iron fencing is steadily on the increase, and buyers of this line are invited to examine the catalogue of the Dwiggs Wire Fence Co. of Anderson, Ind., before placing their orders. Durable, economical and handsome in appearance, the Dwiggs line has been known to the trade for the past eight years, and the increasing sales are a commendation of their satisfactory use. Send for catalogue.

Railings for Office and Counter.—Business establishments nowadays are found more completely equipped with the improvements that appear from time to time than was formerly the case. The use of railings especially has made its way, and offices, counters and other departments of businesses find their presence of convenience and utility. One of the most complete counter and office-railing lines is that shown in the No. 30 catalogue of the Ludlow-Saylor Wire Co. of Fourth & Elm streets, St. Louis, Mo. Copies furnished on request.

Pneumatic Tools.—The use of pneumatic tools and machinery is world-wide, and the sphere of their usefulness is constantly being extended by new devices and inventions. Investigators along pneumatic lines include the brightest minds of the machinery world, and their efforts are rewarded in the results they see attained. The "Eclipse" pneumatic tools, air compressors, etc., manufactured by Messrs. W. J. Schaefer & Co. of 33 Barclay street, New York city, include a most complete line, descriptive of which a booklet has been issued. Write for further particulars.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

New Corporations.

A dispatch from Florence, S. C., is to the effect that another bank may be organized in that city.

A. V. Street and others of St. George's, S. C., are interested in the formation of a bank in that town.

The Potomac Life Insurance Co. has been formed at Washington by William W. Offley and others.

The Mutual Loan Fund Association has been organized at Baltimore, with \$26,000 capital stock, by J. T. Rossiter and others.

The Standard Finance Co. has been formed at Owensboro, Ky., and capitalized at \$100,000 by R. H. Glover and others.

The Fraternal Investment Society, recently organized at Baltimore, includes Elmer C. Wachter as one of the promoters.

The Claiborne County Bank, recently organized at Tazewell, Tenn., is to be capitalized at \$50,000. Messrs. Parker & Treeze are among those interested.

The People's Insurance Co., recently incorporated at Parkersburg, W. Va., is capitalized at \$1,000,000. R. Hughes of Parkersburg is one of the directors.

The new savings bank at Lexington, Ky., will begin business on November 1 with \$25,000 capital. James A. Combs and J. W. Hood are among the directors.

The People's Bank, recently formed at Franklin, Tenn., has opened for business with \$50,000 capital stock. W. H. Glass is president; W. C. Flemming, vice-president, and Bradley J. Campbell, cashier.

New Securities.

The town of Sardis, Miss., will advertise for bids for \$5000 of bonds for water works. Address the mayor.

The city of Greenville, Miss., has decided to issue \$65,000 in 5 per cent. bonds for improvements. Address the mayor.

The school district of Iowa Park, Texas, has voted in favor of issuing \$8000 in bonds. The school board may be addressed at Iowa Park.

The First National Bank of St. Augustine, Fla., has purchased \$20,000 worth of bonds at that city at 105. The sale was made by the board of bond trustees.

The city council of Waxahachie, Texas, has decided to issue \$50,000 in 4 per cent. bonds for refunding purposes. The mayor will give further information.

There is a possibility that the city of Middlesboro, Ky., will place refunding bonds on the market in the near future. The mayor will give further information.

The town of Plaquemine, La., will receive bids until October 31 for its issue of \$38,000 in 4 per cent. improvement bonds. The mayor will give further information.

The election at Tallahassee, Fla., to vote on the issue of \$16,000 in bonds for improvements has resulted in favor of the issue. The mayor will give further particulars.

The people of Clarksdale, Miss., will vote November 6 on the question of issuing \$37,000 in 5 per cent. bonds for improvements. The mayor will give further particulars.

The Kanawha Terminal & Electric Co. will issue \$50,000 in 6 per cent. bonds to finance an electric line which it proposes constructing. J. Q. Dickinson at Charleston, W. Va., is one of the directors of the company.

The city council of Fredericksburg, Va., has decided to refund an issue of \$25,000

in 6 per cent. bonds at a lower rate of interest, and will call in the present issue on January 2. The mayor will give further information.

Messrs. C. H. White & Co. of New York offer to investors an issue of \$25,000 in 5 per cent. bonds of Berkley, Va.; \$45,000 in 5 per cent. bonds of Pulaski, Va., and \$25,000 in 6 per cent. bonds of Pickens county, Alabama. These bonds are issued by some of the most prosperous sections of the South, and are advertised elsewhere.

Dividends and Interest.

The Fulton Cigar Manufacturing Co. of Baltimore has declared a dividend of 6 per cent.

The United Electric Light & Power Co. of Baltimore has declared a dividend of 2½ per cent.

The Choctaw, Oklahoma & Gulf Railroad Co. has declared a dividend of 2 per cent. on its common stock and 2½ per cent. on its preferred stock.

At the annual meeting of the Georgia Southern & Florida Railroad Co. Mr. Samuel Spencer was re-elected president, and William Checkley Shaw, vice-president. From the earnings dividends representing 2½ per cent. on the first and 3 per cent. on the second preferred stock were declared.

Financial Notes.

Robert A. Diggs has been elected cashier of the National Union Bank at Baltimore.

The Union Bank of Knoxville, Tenn., has elected W. P. Hoskins, president; Henry Hudson, vice-president, and O. M. Tate, cashier.

Centrifugal Pumping Machinery.—Centrifugal pump construction is one of the branches of the foundry and machine business that requires the experience, ability, material and workman of the highest order. Machinery of this class as made by the Kingsford Foundry and Machine Works of Oswego, N. Y., is concisely, yet completely, described and illustrated in a new booklet just issued. Users and intending purchasers are invited to communicate with the company. The Kingsford plant is one of the most modern in its character and equipment, and produces stationary and marine boilers (internally fired with rectangular or cylindrical furnaces), engines and general machinery.

Hoists, Cranes and Trolleys, etc.—The use of hoisting apparatus of all classes is ever on the increase. The facilities of machine shops, foundries and other industrial establishments are greatly improved and the labors of the employees lightened by the use of the most improved apparatus in the class mentioned. The Chisholm & Moore Manufacturing Co. of Cleveland, Ohio, issues a booklet relative to its chain hoists, cranes and trolleys, both pneumatic and hand-power, which will be found of interest to present or prospective users of such apparatus. The company's product includes a wide variety of other iron and steel goods, such as steel door hangers and rail, car-door hangers, rail joints, malleable-iron castings, riveting machines, etc.

Reduction of Hard Refractory Materials.—The reduction of refractory ores and other hard substances enters widely into industrial operations of the present day. Machinery and apparatus for this reduction is offered by many firms in the machinery-building world. One of the most prominent concerns, the Raymond Bros. Impact Pulverizer Co., has just issued a new pamphlet relative to the Albert Raymond roller mill which it manufactures. This mill is especially adapted for the reduction of all hard refractory ores, cements, phosphate rock, ochres, siennas, umbers, graphite, talc, soapstone, glass, shale, roots, herbs, plants, bone, etc. When dry pulverization is desired, the Albert Raymond vacuum separator is attached to the mill direct; this machine, combined with the roller mill, enables the entire product to be made any fineness desired with no tailings or waste. For further particulars apply to the company at 1402 Monadnock Building, Chicago, or send for book.

Lubrication for Cylinders and Valves.—In the lubrication of cylinders and valves it

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has been found, so it is claimed, that oils are not entirely satisfactory, especially where high pressure and superheated steam are used. It seems to be generally conceded that for lubricating purposes a mineral oil is in every way preferable, excepting that it lacks body, and in order to get the desirable body animal oils are used; the consequence is that the high heat and steam now used are apt to char the animal oils and form a gummy or sticky mass on cylinders and pistons, even though the surfaces look clean and dry. Careful experiments seem to fully demonstrate that a finely-ground flake graphite furnishes a better body for mineral oils than any of the animal oils, and at the same time is not affected by any degree of heat, and moreover it fills up the microscopic inequalities of the bearing surface, making an ideally smooth surface. Such a compound is found in the Dixon's Ticonderoga flake graphite for cylinders and valves, to which reference is made at some length in a booklet just issued. Address the Joseph Dixon Crucible Co. of Jersey City, N. J., for copy of booklet.